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PSYCHIATRY IN INDUSTRY[1]

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This is a sketchy preliminary report on a fulltime psychiatric program in one industry based on its first two years of existence. The author had previous experience in industry.

No attempt was made to lay out a program in advance. Dr. Gehrmann, the medical director of Du Pont, agreed with the author that such an attempt would violate a basic rule of scientific medicine because it would constitute an attempt to prescribe treatment without first making a diagnosis.

It would, indeed, go further in the wrong direction. Accurate diagnosis is impossible without a knowledge of the anatomy, physiology and pathology of the patient. The psychiatrist, therefore, needed to learn as a first step everything possible about the organization and healthy functioning of the industry and, next, its psychiatric problems. Then, and only then, could he hope to make accurate diagnoses of psychiatric needs and plan how to treat them.

The importance of this basic knowledge appears to have been underestimated in the literature on psychiatry in industry, much of which is built upon flights from reality and creates an aura of witchcraft about the subject. It offers remedies for ills that do not exist, for ills that are unimportant, or ills that are already fairly well controlled. It completely misses some important problems on which psychiatry might offer valuable aid if psychiatry would first learn what these are and accept them as problems for study.

The general result is that industrial management, not illogically, looks upon psychiatrists as long-haired, impractical theorists who, without ever spending the time to learn the facts, attempt to tell industry how to run its own business; or goes to the opposite extreme and accepts the idea that psychiatrists are miracle workers who have panaceas to charm away all their problems. Either attitude makes serious problems for the psychiatrist entering industry.

No psychiatrist can learn all about industry by visiting a plant or two and talking with a few members of management. Industries, like individuals, have each their own personalities based on the personalities of top management, on company policies, the type of industry, and a host of other varying factors. Even within a large industry, such as ours, there are great variations between different departments, as psychiatrists should expect. The emotional atmosphere in an area where a highly toxic substance is made is different from that in a plant where the chemical hazards are minimal; or from that in an explosives plant where the hazards are quite different.

This emotional atmosphere varies, too, in proportion to the efficacy of the protective measures employed. Our explosives plants, for example, have for years maintained an accident rate which averages around 10 percent of that in explosives plants in general and which is lower than that of many industries which are not considered hazardous.

The chief psychiatric hazard, as a result, is not found among the operators in such plants at all. It is, instead, the anxiety which the superintendents of such plants tend to develop as a result of the emphasis on preventing accidents. This creates strains which, in susceptible individuals, may precipitate psychoneuroses.

Psychiatric problems depend, likewise, on the kind of medical service supplied by the company. Tetra-ethyl lead is a highly toxic volatile substance capable of rapidly causing death either by inhalation or by absorption through the skin. When its manufacture was first attempted, fatalities occurred. Other men became psychotic after exposures. Lead encephalopathies were found postmortem. There is, as a result, a great fear of this substance among those who work in it.

But our own medical research has shown, long since, that the absorption of this substance can be accurately measured by means of analysis of blood, urine and feces and that untoward effects do not occur unless certain concentrations of lead are reached. Men working in areas where the substance is

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

made are, therefore, examined every three weeks and specimens of blood, urine and feces are taken. If, on analysis, the concentration of lead is found to be *one half* the *least* amount that can cause trouble, the individual is removed from that area until further analyses show him free of lead.

Every effort is made by the plant physicians to educate the operators and their supervision with regard to the hazards and means of protection. Any man who, through accident, suffers any unusual exposure is rushed to the plant hospital for cleansing and medical treatment. By such education and preventive examinations and treatment, every effort is made to bring the hazards of the operation out of the realm of the unknown into the known, and then to supply adequate protection to the men. The mental hygiene value of such procedures cannot be over-estimated. Knowledge of them is essential to the psychiatrist who would attempt to do rational psychiatry in such areas.

He would need to know even more. The American workman has certain traits and habits which also enhance some psychiatric problems. Older employees in hazardous occupations, for example, commonly initiate new men by telling them all the tall tales they can invent at the moment, and all that have been invented in the past, about the dangers of their work. Fact and fiction are skilfully combined into a fearful whole. And some new men accept it all and work thereafter in a state of chronic terror.

The American workman has another habit which misleads the casual visitor to plants and helps to keep psychiatrists and many other people misled about how hard he works. Whenever a visitor approaches a plant, the word is quickly passed around. If men are shooting craps in the locker room, they are notified; if others are sleeping in the toilets, they are awakened. Those who were visiting friends hurry back to their stations. All of them assume a serious expression and work as if their lives depended on it. So the visitor leaves with the feeling that they lead very hard lives.

The facts may be quite different. The monotony of labor that allegedly breaks workmen down is sometimes due to men having too little to do. In a certain electric weldery known to the author it was easily possible to measure the total time spent in actual welding by the consumption of electric current. Calculations based on such figures showed that the average welder was then welding about 30 percent of the time. Facts like these must be known to the psychiatrist before he can hope to diagnose industrial ills.

Psychiatrists may also develop misconceptions about the psychiatric needs of industry and their importance as a result of accepting diagnoses of such needs from some individuals connected with industry. The emphasis placed on psychiatric screening and placement examinations is an example. It may well be doubted whether this is or ever will be very important to industry as a whole, although there are industrialists who like to talk about it.

But the psychiatrist needs to diagnose such enthusiasts and their proposals before assuming that they represent either industry or its needs. Some of them, as he will then discover, belong to the fringe who seek for some magic substitute for the hard, intelligent efforts which are essential in good management. To be able to diagnose poor management and such unrealistic elements in its causation, the psychiatrist must also learn what sound management is like.

The psychiatrist who investigates will find also that industry employs and uses individuals who fit into every known psychiatric category and that individuals whom the average psychiatrist might think unemployable often prove to be valuable employees. I know, for example, one paranoid schizophrenic who was expelled from a small mental hospital because of the disturbances he caused there. He was hired and put to work in a factory before this interesting bit of recent history was obtained and, after one slight disturbance, which was well handled by his foreman alone, he worked satisfactorily for the two years he could be followed.

As this suggests, industry may be able to teach us something about handling difficult psychiatric patients. And before we decide to screen them out, we need to give serious consideration to the fact that industrialists, known for years to be serious psychiatric cases, have made invaluable contributions to industry.

As a simple means of learning some of the necessary basic knowledge, the author began

his work in the Du Pont Company by acting, for several months, as a regular industrial physician in the home office, doing routine physicals, caring for first aid patients and consulting with employees on their medical problems. This supplied an opportunity to learn something of the policies of the company and to see a cross-section of the employees including members of top management. In addition, frank psychiatric problems were referred to him as they appeared.

Out of this, in a natural manner, a psychiatric practice developed. Incipient psychoneuroses and other conditions were discovered early, diagnosed and treated. Supervision and management began to refer problems. Questions of sick leave led to consultations and conferences about some of these. In a few months, psychiatric work demanded the author's entire time.

From this beginning, the work has branched out in several directions. Of these, the most important remains that of learning the physiology—the normal functioning—of various units of the company. And, with this, the pathology—the psychiatric problems—of these units. It may appear that I overemphasize this, but I do not believe this can be done. Psychiatry cannot be rationally applied to industry except on the basis of current knowledge of that industry in all its parts.

So, whenever possible, visits are made to plants and laboratories. On such visits every opportunity is grasped for talking to the operators, technical men and management to learn what they are working at and how they approach it. One technical division invites the psychiatrist to sit in on all the meetings of their top staff. Meetings of sales, advertising and production executives have also been attended. To some of these the psychiatrist has been able to contribute.

Out of such study and contacts has come one of the most valuable projects in our program. For the past six months or more, the management and directors of a large research division have been meeting specially, twice a month, in a seminar with the psychiatrist to discuss their own emotions and any problems of managing themselves or their personnel which may arise. This constitutes the equivalent of group therapy applied to normal people in positions of considerable authority. The results are already becoming apparent in their own attitudes and behavior and in the morale of their subordinates. This is genuine preventive psychiatry. It is also the first attempt known to us to develop executive ability on a scientific basis.

Another valuable procedure has been the conferences held with members of management and supervision about cases in which management's treatment has adversely affected the patients. Men in authority have shown great interest in learning about anything they had done to precipitate such cases, in order to learn how to avoid such detrimental practices in the future. In some cases, the superiors themselves have come in for treatment of personality traits which were interfering with the productivity and development of their subordinates. Better human relations have resulted from such conferences. This, too, is preventive psychiatry.

Time will not permit a detailed report on all our activities. They include early treatment of incipient psychiatric problems, advice as to the referral or hospitalization of more severe ones, talks to groups of supervisors and plant managers, papers for our plant physicians, and clinical instruction at the plants for some of them as circumstances permit.

A serious unsolved problem is the fixed habit of many uninformed practicing physicians and surgeons, including some psychiatrists, of advising all "nervous" patients to take time off. The Du Pont Co. pays full wages for three months in case of illness after one year of service. If the employee has agreed to pay for his share of the premium, he receives an additional $25.00 a week accident and health benefit. The physicians in question know this and order time off with greater than average freedom because the patient will not suffer financially. By doing this they turn incipient psychoneurotics into chronic cases which are then much more difficult to treat. Education of the medical profession in the diagnosis and proper treatment of psychoneurotics will alone correct this dangerous practice. We are making some small experiments to determine how such education can be most effectively accomplished.

CONCLUSION

I. Industrial management is open-minded about the application of psychiatry in industry provided the psychiatrist is willing to learn about industry and its problems. In our own experience, we find that top management increasingly asks for psychiatric help in personnel problems. This, in time, will result in improved mental health throughout the entire organization, *if our advice is sound.* This—the top—is the place preventive psychiatry must start to be effective.

II. It seems obvious that the basic causes of all functional mental disease exist, grow and cause some manifestations in normal people; that normal people are the hosts or carriers from whom unfortunate individuals contract the more serious, recognized forms of this group of ills. Until we learn far more than we now know about this part of the cycle, we cannot hope to learn how to treat and prevent mental disease. Industry offers the psychiatrist an unique opportunity to explore this important area, now one of almost complete darkness.

III. We have already developed a psychotherapeutic approach with which, in several hundred cases of psychoneuroses and a few psychoses, it is possible to obtain lasting good results with a very few interviews while the patients continue at their regular work.

CURRENT TRENDS IN INDUSTRIAL PSYCHIATRY[1]

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Since its beginnings as a specialty some thirty years ago, the growth of industrial psychiatry has been highlighted by a few outstanding successes, but its major gains have been accomplished through a slow and often uneven process of infiltration. Even after the impetus given by World War I, progress in the next ten years was sporadic, coming virtually to a standstill during the ten years preceding World War II. The utilization of the concepts of psychiatry and mental hygiene in the present industrial scene has still not advanced beyond the pioneering and exploratory stages. It is too soon to say with any certainty whether the upsurge given to industrial psychiatry by the last war has finally laid the foundation for a more rapid and a more extensive development of this field than has occurred in the previous three decades. The present widespread concern over the placement and readjustment of men discharged from military service with neuropsychiatric conditions has served to keep alive the impetus which was given by the manpower problems during the period of mobilization. Another and still more recent stimulus arises from the recurrent, deeply seated problems in the human relations field growing out of unresolved conflicts between individuals and groups representing the opposing points of view of management and labor.

In addition to the immediate problem presented by the dearth of psychiatrists with adequate industrial experience and orientation, a great amount of educational work still needs to be done before management as it is now constituted will be able to appreciate and accept the contributive possibilities of psychiatric understanding and techniques. This is true from the humanitarian as well as the economic point of view. Two practical obstacles which stand in the way are the lack of training facilities for psychiatrists in industry and the absence of established precedent for initiating psychiatric programs (1). Since the functions of the psychiatrist who enters industry invariably encompass both medical and personnel fields, it is important that he should not be too narrowly identified with purely medical or clinical activities. He must be prepared from the outset to collaborate and adapt his techniques to those of other departments within industry dealing with human relations, such as personnel counseling, psychological services, employee research, and various industrial relations activities which are sometimes grouped under the term "human engineering."

It is in many ways fortunate that the educational, advisory, and consultational nature of the psychiatrist's work within an industrial organization requires no special grant of authority; but on the other hand little real progress can be made without the full endorsement of top management. Experiences of industries that have utilized psychiatrists on either a full or a part-time basis during the war have completely dispelled the initial fear of some that unless it is done secretly, the introduction of a psychiatrist would be resented by employees. There is no longer any need, if indeed there ever was, for concealing the identity of the psychiatrist or having him masquerade under a false title. Such unrealistic methods merely complicate his task and are as handicapping in the end as the mistake on the other extreme of announcing his presence with great fanfare.

The specific functions of the psychiatrist in industry have characteristics all of their own and some of these stand in marked contrast to the procedures used in the private office or clinic. In his work as catalyst to all activities which have to do with the handling of people and the prevention of damaging interpersonal relations, the industrial psychiatrist cannot work in isolation. His efforts must be intimately correlated and coordinated not only with those of medical and personnel workers, but also with the activities of those who give psychological tests and are engaged in interviewing and

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

counseling employees. In the interest of serving the organization as a whole it will be necessary to modify and adapt concepts concerning confidential information after the manner in which this is done in a psychiatric clinic.

The following list gives some of the broader consulting and educational functions in which the industrial psychiatrist must play a leading part:

1. Correlation of techniques for improving the selection, placement and promotion of employees presenting some degree of mental, emotional or intellectual disorder.
2. Elucidation of techniques for uncovering actual as well as potential "problem employees" and for the handling of such individuals by supervisors, medical and personnel consultants, including the line of referral for those who require psychological or psychiatric consultations.
3. Participation in training programs for counselors and supervisors in respect to understanding and handling the psychological factors influencing the productivity of both normal and problem workers.
4. Checking the effectiveness of, and developing techniques for improving all employment, medical and personnel functions involving interviewing and counseling.
5. Provision of a consulting service open to both management and labor union officials, as well as others who voluntarily request interviews.
6. Organization of research projects which throw light on causes and remedies of personality problems on both employee and supervisory levels.

It might be of interest in this connection to review some of my own experiences during the war period as a part-time psychiatric consultant in a plant having 2200 employees. The overall span covered by this experience was fifteen months, which on the basis of two days per week corresponded to about five months on a full-time basis. It should be said that this venture was undertaken without any preconceived plan or assignment beyond the broad objective of assisting in the selection of personnel, and in searching for methods of improving employee and supervisory morale. A tabulation of the activities carried on during the fifteen months period reveals that approximately 15 percent of the time spent was in personnel and medical department contacts, 9 percent was taken up by conferences and training sessions, and the remaining 76 percent was employed in interviews with individuals on all of the organizational levels throughout the plant. These were divided fairly evenly between top executives, foremen, salaried employees and hourly paid workers. Many of the contacts on the supervisory level were initiated through survey interviews, and this approach was productive not only of much material on morale and employee opinion concerning plant policies, but functioned also as a source of referral for a wide variety of personality and adjustment problems which would otherwise not have come to attention in their earlier phases.

One of the industrial psychiatrist's most fruitful contributions is related to the assessment of mental, emotional and temperamental qualities of applicants for employment. There is great need in industry for more training in the psychiatric background which is essential for accurate personality appraisal during pre-employment examinations and interviews(2). The paucity of observations in the average industrial medical record on personality elements stands in marked contrast to the completeness with which the physical inventory is made. The need for techniques to correct this hiatus is still further emphasized by the now generally accepted fact that the placement and continuing supervision of the employees with personality disorders is of far more importance than that of the physically impaired or handicapped.

Bearing further on this point, one interesting survey recently made on a group of employees in a large war plant conclusively proves the predictive value of even a relatively superficial psychiatric approach at the time of the pre-employment examination. The plant physician in this instance possessed a remarkable degree of psychiatric insight, and at the time of making his routine physical examination he developed the practice of recording his informal observations on the general mental and emotional balance of applicants for employment. About 3 percent of those hired had notes indicating that these employees were potentially un-

suited for factory work on the basis of the observed attitudes and personality makeup.

In an attempt to determine the reliability of these observations, a subsequent study, based on available personnel and medical records, was made of some 1400 employees who remained with the plant for two years or more. It was found that a high proportion of the persons that had manifested inability to get along and who had excessive friction with fellow employees and supervisors were among those on whom notes concerning personality reactions had been made. The group on whom unfavorable appraisals had been made reported up to 75 percent more sick absenteeism than did the average employee. In addition, this group had more minor accidents, showed a higher average number of visits to the medical dispensary, and violated shop rules more frequently than the control group.

A review of the brief personality characterizations which were made at time of employment reveals that they are descriptive of surface reactions and response patterns readily discernible on trained first impression. This makes the fact that they had such a high predictive value all the more striking. In a general way these comments may be grouped into four categories, as follows: (1) those showing distinctly negative personality reactions (arrogant, distrustful, resentful, "smart-alec," etc.); (2) those indicative of mental disorder or defect (disconnected responses, slow mental reflexes, state hospital record, etc.); (3) those showing neurotic tendencies (anxious, excitable, fingernail biter, jumpy, sensitive, etc.); and (4) miscellaneous and borderline characterizations not directly classifiable (perfumed, quiet, self-assured, talkative, etc.).

As might be expected, the employees in whom strong negative reactions had been observed almost without exception stood highest in the group with unsatisfactory work records. But the survey also revealed another fact which was not apparent at first glance, namely that the unsatisfactory performance was not significant until the study group had passed the first six months probationary employment. It was after employees had attained seniority that the bulk of maladjustments anticipated on the basis of the original personality description came to attention with increasing frequency. The long-range predictive value of the psychiatric approach in employment interviewing is thus clearly demonstrated.

But the psychiatrist's interest in the contributive potentialities of employees goes beyond the improvement of personality assessment techniques at the time of hire. It extends to all points of interpersonal contact between employees and supervisors within the organization. Direct consultations with and conferences concerning individual problem workers can be expected to utilize the greater share of the psychiatrist's efforts, but it would be falling short of his highest contribution if he devoted his time exclusively to such more or less clinical aspects. The majority of personality and adjustment problems which find expression in terms of medical and psychosomatic complaints are more appropriately handled by the industrial physician, whose functions as psychotherapist are of course a matter of direct concern to the psychiatrist(3). While a high percentage of problem workers will come to attention through contacts with the medical department, it must be emphasized that the psychiatrist cannot expect to find all the major sources of individual and group conflict through this single referral point.

Another and in some ways a much more effective entry into problem situations involving human relations can be implemented through the use of survey interviews in selected key departments of the organization. Besides disclosing overall trends which give a tangible basis for assessing departmental morale, survey interviews offer highly favorable opportunities for direct contacts with foremen and supervisors. It is remarkable that no matter how busy he may be, the average foreman is always eager to enter into a discussion concerning human relations. Foremen as a group invariably show deep concern over the need for more effective methods of handling employees who manifest emotional problems on the job. In the course of such discussions they are very likely to reveal their own attitudes, not only toward the men under them but also toward their executives and the management policies of the organization. Fixed opinions towards unions, race relationships, or women em-

ployees are frequently revealed as sources of friction and conflict in the supervisor's daily contacts. Besides their value in helping to diagnose trouble spots, the troubled supervisors, and problem workers, survey interviews frequently disclose promising material often otherwise overlooked by routine promotional policies.

In a small series of survey interviews the writer interviewed 9 foremen concerning some 300 men who had been employed steadily for a year or more, with a view toward obtaining direct information on morale and efficiency in each foreman's department. The foremen were asked to rate their men by impression on the following six factors: attendance, work output, attitude and personality, health, aptitude, and social adjustment on the job. It was found that wide differences existed among the 9 foremen as to the proportionate number of men whose work performance was unsatisfactory. The range of unsatisfactory employees was from 11 to 36 percent, with an overall average of 23 percent. Besides revealing that in general one man out of 5 is an unsatisfactory employee, this survey brought out wide differences in the ratings of foremen on a comparable group of employees, a fact which is bound to have its influence on departmental morale and efficiency, as well as on the manner in which specific human relations problems are handled as they arise on the job. From this it is obvious that the survey interview approach offers a stimulating channel for the efforts of the psychiatrist, both in his personal contacts with foremen and referred employees, and in a broader way as a source of material for use in training programs in industrial human relations.

Any attempt to summarize in a practical way the chief contribution which psychiatry brings to industry invariably focuses attention on the subject of interviewing and

TECHNIQUES USED IN THE MANAGEMENT OF INTERPERSONAL RELATIONS IN INDUSTRY

CLASSIFIED ACCORDING TO ASCENDING LEVELS OF COMPLEXITY

Counseling and psychotherapeutic interviews	Therapy of psychiatric conditions: mood disorders, psychotic symptoms, acute and chronic neurotic reactions, and personality disorders
	Psychiatric first aid for emotional disturbances, including acute manifestations
	Referral techniques and procedures
	Medical consultations and treatments
	Counseling interviews with problem employees (relating to discipline, personality clashes, rules infractions, layoffs, discharges, etc.)
	Counseling services for employees
	The Hawthorne and non-directive techniques
	Job relations and job adjustment interviews (i.e., concerning wages, grievances, upgrading, promotion, transfer, etc.)
Advisory and educational contacts on the job	Survey and employee opinion interviews
	Employee appraisal interviews
	Pre-exit and exit interviews
	Employee "post-mortem" discussion conferences
	Lectures and conferences on industrial human relations
	Psychological factors in job instruction and job training
	Sponsorship system for new employees
Informational level	Interviews regarding psychological tests and results
	Personality appraisal (as part of medical examination)
	Pre-placement employment interviewing
	Case history approach
	Preliminary screening
	Final selection and placement
	Interviewing for key positions
	Interpretation of application forms and questionnaires

counseling techniques. Although there is always a considerable degree of overlapping, for purposes of classification the more significant interpersonal relationships within an industrial organization can be grouped under three headings: informational, advisory and educational, and therapeutic. The table on page 152 gives examples of the more common interviewing situations, and the techniques used, arranged on an ascending scale of complexity. When the problems of industrial human relations are approached from this point of view, it is readily seen that there is a definite place for psychiatric understanding and orientation on all of the interviewing levels, ranging from the utilization of the case history approach in employment procedures to the application of elementary psychotherapeutic methods in the form of catharsis, counseling techniques, and psychiatric first aid.

CONCLUSION

In addition to its basic function as an integral part of the preventive arm of industrial medicine, industrial psychiatry has an active rôle to play in the rapidly growing field of industrial human relations. As the consulting, advisory, educational and therapeutic functions of the industrial psychiatrist are becoming more and more clearly defined, both in the clinical and in the personnel areas, the value of this type of service is becoming firmly established from the economic as well as from the humanitarian point of view.

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EPILEPSY

Treatment with New Drug: 3-methyl 5,5-phenyl-ethyl-hydantoin (phenantoin) [1]

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This is a report on the treatment of 104 epileptics with a relatively new drug: 3-methyl 5,5-phenyl-ethyl-hydantoin. This drug has been temporarily called "phenantoin" [2] and will be referred to as such below.

A preliminary report was presented recently (1). The use of this drug in a large series of patients has not been reported previously. Loscalzo used a special preparation called "hydantal" which was a fixed combination of phenobarbital with 3-methyl 5,5-phenyl-ethyl hydantoin (2). He noted that 6 of his 17 patients developed some drowsiness; and he therefore omitted the phenobarbital-combination during the day in favor of the uncombined drug. Clein has reported on the use of this same hydantal in 10 cases (3).

In my series 60 percent of the patients have had the average monthly frequency of their attacks reduced to one-tenth of what they were before this drug was used. This is a 90 percent reduction in the frequency of their attacks. The maximum length of time between attacks has been tripled. Thirty percent of these patients who showed benefit have remained free of attacks for a period of from 3 to 22 months.

The similarities and differences between phenantoin and dilantin-sodium may be noted by a comparison of their structural formulas. (See opposite column.)

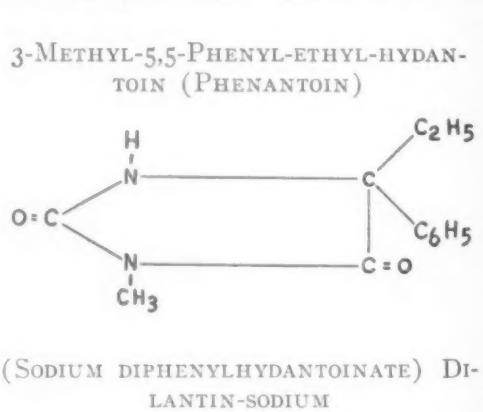
Phenantoin may be used alone or in combination with others and particularly with dilantin-sodium. In fact the synergism which exists between phenantoin and dilantin-sodium has made possible therapeutic results which were unattainable with either drug alone or in combination with barbiturates.

The 104 patients on whom this study is based were seen in the epilepsy clinics of the Boston City Hospital, the Children's Hospital of Boston and in private practice.

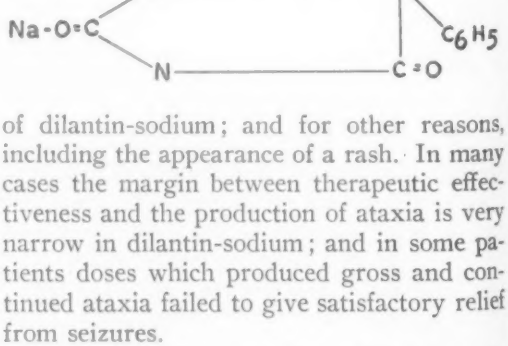
Phenantoin was first administered to: patients who were having frequent epileptic attacks despite maximal doses with dilantin-sodium, etc.; patients who had suffered marked gingival hypertrophy from the use of dilantin-sodium; and for other reasons, including the appearance of a rash. In many cases the margin between therapeutic effectiveness and the production of ataxia is very narrow in dilantin-sodium; and in some patients doses which produced gross and continued ataxia failed to give satisfactory relief from seizures.

In a sense, a large number of the cases in the present series are *selected* on the basis of their recalcitrance to previous treatment. It is probable that in a truly unselected group of epileptics the results of treatment by phenantoin would be even better than those reported here.

3-Methyl-5,5-Phenyl-ethyl-hydantoin (Phenantoin)



(Sodium diphenylhydantoinate) Dilantin-sodium



[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Neurological Unit of the Boston City Hospital, the Children's Hospital of Boston, and the Department of Neurology, Harvard Medical School.

[2] Recent word from the Sandoz Co. indicates that phenantoin will be hereafter called mesantoin.

One of the principal values of phenantoin is that it can be administered in substantially *larger* doses than either dilantin-sodium or phenobarbital. Without regard to the comparative anti-convulsant properties of phenantoin and dilantin-sodium, weight by weight, it appears possible to give larger *total* anti-convulsant doses of phenantoin. The principal drawback or side effect of phenantoin is that it tends to produce drowsiness. However, this effect is not at all comparable with the soporific effect produced by barbiturates, and can in most cases be eliminated or obviated by gradual increases in dosage. Another advantage is that this drug does not have a disagreeable taste and thus may be administered to infants who sometimes object to the taste of dilantin-sodium even when attempts are made to conceal it in food. Also this drug may be administered in small pill form which makes it easier for children to swallow. No case has reported gastric distress from its use. No case on phenantoin has developed hypertrophy of the gums or hirsutism. Most of the cases which had developed gingival hypertrophy on dilantin-sodium developed a recession of the hypertrophy when phenantoin was substituted.

Rash appeared in approximately 10 percent of the patients, but it was possible to desensitize some of them so that only 7 percent were unable to continue on the drug because of a skin reaction. Three patients who developed a rash on dilantin-sodium, precluding continued use of such, succeeded in taking phenantoin.

The *toxicity* of phenantoin appears to be very low. One patient, age seventeen and weighing 150 lbs., ingested a total of 7.2 grams (72 tablets of 0.1 gram apiece) at one time in a suicidal attempt. This exceeds the largest reported single ingestion of dilantin-sodium by 0.7 gram. When found eight hours later he was in a deep stupor but did not appear dangerously ill as his respirations, blood pressure and pulse were within normal limits. He could be aroused within twelve hours from the time he took the drug and appeared entirely free of its effects within thirty-six hours.

The *results* of the treatment with phenantoin may be summarized statistically with respect to the *frequency of attacks* and the *duration of the longest intervals between attacks.*

In the entire series of 104 patients there was an approximate reduction of 20 percent in the frequency of seizures. However, if a selected group of 62 patients (60 percent of the whole series) is taken *there has been a reduction to one-tenth or an improvement of 90 percent.*

The average *duration of the longest intervals between attacks* in the entire group was 70 days. Following the initiation of phenantoin treatment the average duration of the longest intervals between attacks is 138 days which is nearly double the previous maximum duration. In the selected group of 62 cases, prior to the initiation of phenantoin treatment, the average duration of the longest intervals between attacks was 66 days. Following the initiation of phenantoin treatment this maximum period of freedom from attacks has been extended to an average of 200 days which *is more than three times the previous maximum duration.*

Sixty-two patients, *60 percent* of the entire series, were either *greatly or moderately improved* on phenantoin treatment. By greatly improved was meant: attacks markedly reduced in frequency, free intervals markedly increased or both. There were 45 patients (43 percent of total) so classified. By moderately improved was meant: frequency of attacks reduced by at least 50 percent, free intervals definitely increased in duration, or both. There were 17 patients (17 percent of total) so classified.

Ninety-six patients had previous treatment of whom 82 received dilantin-sodium either alone or in combination with barbiturates, 11 had phenobarbital and 3 had tridione.

Forty-seven of the 62 patients classified as improved had been treated with dilantin-sodium either alone or in combination with other drugs previous to phenantoin treatment. Nine had been on phenobarbital alone.

The average dose for a child is 0.4 gram daily. The average dose for each of the 78 youths and adults in this series is 0.6 gram daily. There were wide individual variations ranging from 0.3 gram daily to over 1.0 gram daily.

The average duration of phenantoin treatment in this series was 10 months. Twenty-

one patients have had the drug for periods of 12 to 15 months; 21 have been on the drug from 16 to 22 months.

Sixty-five percent of all patients with predominant grand mal showed substantial improvement on phenantoin. Seven of the 9 predominant psychomotor cases improved. The petit mal group must be considered as unimproved pending experience with a larger group over a longer period of time.

It is of the utmost importance to recognize that the effective administration of phenantoin to a patient requires persistence and therapeutic acumen. Most of the patients on phenantoin developed drowsiness which was directly related to the dosage. Patients were much less likely to develop drowsiness if they were started on small doses (0.1 gram daily) which were gradually increased. Most of the patients were able to tolerate doses in excess of the ones which originally produced drowsiness after varying periods of time extending from one to three months. This emphasizes the importance of persistence. Incidentally a rash is probably less likely to appear if one begins with small doses.

The synergism between phenantoin and dilantin-sodium is a happy one. Neither enhances the undesirable and limiting side-effects of the other. Thus, some cases which could not be satisfactorily controlled on either were controlled by a combination of maximal doses of both. It is possible to push both drugs to the limits of tolerance.

A word of caution and restraint should be added. This drug appears to have been spectacularly effective in some cases as will be seen by the brief case reports mentioned below. However, some of these patients may later develop tolerance to phenantoin and regress. Only time will reveal the exact place of phenantoin in the treatment of epilepsy.

Below are presented a few cases which illustrate some of the more gratifying results of treatment with phenantoin.

1. P. M., Case No. 32, is an 18-year-old girl who has had psychomotor attacks for ten years. In the two years preceding phenantoin treatment she averaged at least 100 such attacks per month and frequently had as many as 10 daily. In each attack she would wander about aimlessly, urinating as she walked. These attacks, which had grown worse in present years, resulted in the withdrawal of a college scholarship. She was unable to hold any sort of job except in a ten cent store where her sister was the manager. Doses of 0.5 and 0.6 gram of dilantin-sodium failed to reduce the frequency of the attacks. The longest period free of attacks, previous to phenantoin treatment, was one month. Phenantoin treatment was begun 16 months ago. Her attacks were reduced to a frequency of 0.2 per month and she has not had a single attack for a year. She takes 0.9 gram of phenantoin daily. For the last 6 months she has held a steady job as a teller in a bank.

2. G. S., Case No. 42, is a 32-year-old man who has had attacks of grand mal for 15 years with an average frequency of one per week. He has not gone more than 4 months without an attack. His previous treatment had been dilantin-sodium up to 0.6 gram (on which he became grossly ataxic) plus phenobarbital. Many of his convulsive seizures took place while at work and cost him his job. He has been on phenantoin alone for 15 months. In the first two months of treatment he had two seizures. He has now gone 13 months without a single attack. His maintenance dose of phenantoin is 0.8 gram.

3. E. I., Case No. 25, is an 18-year-old girl who has had attacks of grand mal since the age of 11. Despite exceptional attractiveness and superior intelligence she was asked to leave a boarding school because of her attacks. It had been necessary to maintain her on large doses of phenobarbital because dilantin-sodium produced a recurrent rash. Previous to phenantoin treatment she averaged, at the very least, 8 attacks per month and had not gone over a week without an attack. She has been on phenantoin for 7 months. In the first 4 months she had 6 mild attacks. She has now gone 3 months without a single attack. It should be added that she has had a great reduction in auras of which she used to have a great many in addition to her outright seizures. Her dosage of phenantoin is 0.8 gram daily.

4. P. M., Case No. 58, is a 46 year-old-man from whom a suprasellar cyst was removed in 1939. Two years later he began having generalized convulsive seizures. Dilantin-sodium treatment was begun in 1942. He had taken his dilantin-sodium faithfully in doses which were so large as to produce ataxia and which resulted, on one occasion, in his arrest on suspicion of intoxication. In the 30 months preceding phenantoin treatment he had at least 64 grand mal attacks, which is an average of more than 2 attacks per month. His longest free interval had been 2 weeks. In 12 months of phenantoin treatment he has not had a single attack. His dose is 0.8 gram daily.

5. M. C., Case No. 49, is an 18-year-old girl who has suffered attacks of grand mal for 14 years. In the year preceding the beginning of phenantoin treatment she had 48 attacks despite the fact that she was on dilantin-sodium, 0.6 gram daily plus mebaral, 0.3 gram daily. This medication had

produced hypertrophy of the gums and ataxia. The longest interval free of attacks in 5 years had been one month. She has been on phenantoin 18 months. In the first 5 months of phenantoin treatment she had 8 mild attacks. She has now gone over a year without an attack. Despite a phenantoin dosage of 1.0 gram daily she is not drowsy.

6. C. C., Case No. 10, is a 25-year-old woman who has had grand mal seizures for over 20 years. She had an average of 12 seizures per month and in the preceding 5 years had not gone more than 3 months at any one time without a seizure. Phenantoin treatment was begun 20 months ago. In the first 4 months it was overlapped with the dilantin-sodium she had been taking. In the last 16 months she has been on phenantoin alone. She has not had a single attack for 20 months.

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DISCUSSION

DR. ANTHONY E. LOSCALZO (New York, N. Y.).—My experience with this new drug dates back to 1943 when the first clinical study of it was begun. At that time it was carefully tried on a group of 18 very cooperative patients for a period of about 16 months. Three years ago when this new drug was brought to my attention, I noted the similarity between its chemical structural formula and that of DPH.[1] I had questioned hundreds of epileptic patients and the majority of them were taking DPH plus phenobarbital. I also questioned many physicians who treated epilepsy and found that 90% of them include phenobarbital with DPH in their therapy of epilepsy. Most of the physicians felt that phenobarbital has a synergistic action with DPH. Many clinicians have expressed the same opinion in print from actual clinical studies. In view of all this, I decided to use a combination of phenobarbital with this new drug. The plain drug (phenantoin or N4) was given to 6 or 7 patients, but better results were obtained when given later to the same patients in combination with phenobarbital. In view of this, the combination was given to the 18 very cooperative patients.

Since 1943 the studies have continued, and at present, I am treating a group of approximately 75 patients. This group is equally divided between the two sexes. All of the patients are adults except a group of 8 or 9 children referred to me by physicians and who have been receiving the drug for the last 8 months. Ninety percent of the present patients were taking DPH plus phenobarbital previous to this new drug. The full and complete details of this study will be in publication soon.

The results at this date of the present series of 75 patients are substantially the same as reported in June 1945. There has been a reduction of approximately 60% of grand mals. It has had no effect on petit mals or the other forms of epilepsy. This drug, in my opinion, is definitely less toxic than DPH. Many patients who could not tolerate DPH have been able to take this drug without toxic effects. This clinical opinion has been borne out recently by experimental data. Swinyard and Goodman studying a group of hydantoinates and using two new laboratory techniques found that the ratio of the toxic dose to the protective dose is a value of 12 for this drug and only 2 for DPH. Another interesting finding of the same authors was that 5 mg. per kilo of this new drug protected the animals against maximal electro-shock, whereas, 50 mg. of DPH was required for the same protection. These laboratory experiments substantiate the clinical findings. Out of 75 cases in this group there were 4 cases of gum hypertrophy, or approximately 5%. The hypertrophy was minimal and of no clinical significance. Of course, these were adults and I understand that gum hypertrophy is more common in children with DPH. There also were 3 cases of skin rash, or approximately 4%. In one of the three, the drug was discontinued, but the other two were continued on the drug after a cautious tolerance was developed. Ten cases complained of drowsiness, this is 13%, but this complaint of drowsiness became less troublesome after the patient became used to the drug. In the clinic last week, before I left New York, one patient who had been taking the plain drug for two months developed a crop of ulcers in the mouth involving the buccal mucosa. These ulcers resembled the commonly seen canker sores. A blood count showed a normal white count. This case will be more fully studied later. No other toxic effects attributable to this drug were noted. One patient developed infectious jaundice but, the jaundice cleared up in about three weeks while the patient was on a full therapy.

I wish to make one point very clear, this drug has no antagonistic action with phenobarbital. In fact, I am of the opinion that phenobarbital acts in synergy with this new drug. This opinion, I am afraid, is in disagreement with Dr. Kozol's opinion. In Dr. Kozol's series, he discussed the toxic effects of drowsiness and skin rash. I wish to point out all the toxic manifestations already mentioned. However, the percentage of toxicity with this drug is still quite less than DPH. Dr. Kozol has presented a very well prepared paper and my experience agrees with his almost entirely.

In conclusion, after three years of study and ob-

[1] Diphenylhydantoinate.

servation of this new drug, I am convinced that we have a new and powerful weapon in the treatment of epilepsy. This drug will not replace other present anticonvulsant drugs, but is an addition to the therapy of epilepsy. More work will be necessary in order to determine its full merits or demerits, but at this stage, I daresay, that phenantoin or N_4 is just as much an improvement over DPH as DPH was over phenobarbital.

Reply by Dr. Kozol.—There are some comments I wish to add. Apparently there has been some misunderstanding about my statements concerning the use of phenobarbital in combination with phenantoin. Phenantoin and phenobarbital are not antagonistic; and I had no intention of giving such an impression, nor was I aware that I had done so. I agree that phenantoin and phenobarbital are synergistic. The trouble is that they are all together *too much so* as regards *sedative* effect. That is the objection to giving them in combination, because the sedative effect of the added phenobarbital sharply limits the total quantity of anti-convulsant phenantoin which can be given. Phenantoin is far superior to phenobarbital in its anti-convulsant effect. As I have pointed out, the principal factor which limits the dosage of phenantoin is the sedative effect produced by the drug. Thus to add a sedative like phenobarbital only enhances the undesirable effect of limiting the total anti-convulsant dosage of phenantoin without adding any advantage. I may be mistaken but I was under the impression that in the report by Dr. Loscalzo on the use of the phenobarbital combination, he started with the combined form and only turned to the uncombined form because of the development of drowsiness in some of his cases. Phenantoin doesn't need any sedative supplement; if anything, it could use a stimulant supplement. Phenobarbital is known to have but a moderate anti-convulsant and a substantial sedative effect. As the principal synergism which exists between phenantoin and phenobarbital is a sedative one, it is an undesirable one. That is the reason why I consider it inadvisable to use it in combination. I am sure that by the use of this combination it has been impossible to produce an anti-convulsant effect which at all compares with that obtained by maximal tolerable doses of phenantoin alone.

TWO NEW DRUGS IN EPILEPSY THERAPY [1]

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Since the last meeting of this section, I have used two drugs which differ greatly in therapeutic and side effects, but which are welcome additions to the weapons designed to hold epilepsy in control.

First in point of time is trimethyloxazolidine dione. This drug was synthesized by Spielman of the Abbott Laboratories. There Richards and Everett(1) demonstrated that the drug protected animals against induced convulsions. Contrary to expectations aroused by the animal experiments, I have found this compound of little or no value as an anticonvulsant in patients, but peculiarly effective in the control of seizures of the petit mal type: pykno-epilepsy, myoclonic jerks, and akinetic epilepsy(2). To date I have treated 230 patients for a period long enough to judge results. Of these, 150 had petit mal, 30 had psychomotor seizures, and 50 had grand mal. (37 had both frequent petit mal and grand mal.)

Of the 150 patients who had one or more of the petit mal triad, 33 percent have been freed of this form of seizure from one to 15 months; 30 percent have experienced a reduction of more than three-fourths of their seizures: 21 percent were moderately improved; 13 percent were unchanged and 3 percent were worse. Thus 84 percent were to some degree better.

Patients, who are promptly and completely freed of petit mal, or their parents, say, "It seems like a miracle." The physician who has vainly tried both standard drugs and "new discoveries" shares this feeling. Unfortunately, a minority of patients are either not helped or have to discard tridione because of its side effects. Because petit mal is predominately a disease of childhood and because the majority of epileptics in state institutions enter as children, this drug should be especially welcomed by the personnel of epileptic colonies and hospitals. The cost is greater than phenobarbital or dilantin, but in favorable cases dosage can be reduced or even cancelled.

Results with other types of seizures have, in my experience, been discouraging. Of 30 patients having frequent psychomotor seizures, 44 percent were in some degree better, but 56 percent were not improved, or even had more seizures; only 5 (17 percent) had been seizure free for a significant period of time. Because of the fact that psychomotor seizures, compared with petit mal, recur at longer and more uncertain intervals, results cannot be judged as quickly. For example, a high school boy was having two or three psychomotor seizures weekly. For more than a year he was given phenobarbital, dilantin, tridione, or methyl phenylethyl hydantoin without any relief. On a combination of dilantin and tridione, he had a remission of seven weeks, and was placed in the "freed" group. Then in spite of a continued maximum dosage of these two drugs, seizures returned at their accustomed frequency and he was listed as "somewhat improved." Tridione used alone is useless and when combined with anticonvulsants, as was the case in these patients, one cannot be sure which drug should receive credit for any benefit observed. DeJong(3) has ascribed the benefit of combined therapy to tridione. Because many physicians have reported relief of psychomotor seizures with dilantin alone, and none has reported benefit from tridione alone, the burden of proof would seem to lie on the proponents of tridione.

In patients having frequent grand mal, results have been generally negative. There would seem to be no excuse for advertising tridione to physicians as "a new anticonvulsant." Among 50 patients having grand mal frequently enough to judge the effects of treatment, only 16 percent had fewer grand mal, while 50 percent had more. Patients who had a history of both petit mal and grand mal were given phenobarbital or (if neces-

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Department of Neurology Harvard Medical School and the Children's and Infants' Hospital of Boston, Mass. No. XLVII in a series entitled "Studies in Epilepsy."

sary) diphenylhydantoin in addition to the tridione. Experience is the only guide in deciding whether the combination should be continued in these complicated cases.

Of the side effects, skin reactions were encountered more often than with phenobarbital or diphenyl hydantoin. There was either a generalized measles-like rash or minute, hard papules in the skin of face or forehead. One patient had erythemia multiforme with leucopenia and fever. In all but a few instances, tolerance to the drug could be established by first withdrawing it and then giving small and slowly increased amounts. Photophobia proved troublesome in approximately one-third of the cases, but required discontinuance in only a few. A sedative effect might be noted with larger doses in some patients, whereas other patients became more active and irritable. In many of the patients made seizure free, improvement in school work, in disposition and in general well being has brought joy to the parents.

Having been used less than two years, statement regarding the long term good or bad effects of tridione cannot be made. Encouraging is the fact that when patients are made seizure free their electroencephalograms are also improved. When both clinical seizures and subclinical petit mal electroencephalographic discharges have been absent for several months, medication has been discontinued. In some cases seizures have returned after an interval of weeks or months. Other patients have remained seizure free. Tridione is now "on the market."

Aside from clinical results, the fact that relief is very largely confined to seizures attended by a certain peculiar formation of the brain waves (an alternate spike and wave) opens new vistas for investigation into this most disconcerting but intriguing disease.

Methyl phenyl ethyl hydantoin

The effect of this drug, developed by the Sandoz Company and to be called mesantoin, has been tested by my associate Kozol in 104 patients.[2] Sixty percent of his group experienced an average reduction of 90 percent in the number of their major seizures. My own series of 35 cases is much smaller and consists of private patients only.

The task of evaluating the effect of drugs on petit mal is easy because the experimental drug has no competitor, for no drug has been of proven value. In the case of grand mal or psychomotor seizures, however, the new medicine has not only to demonstrate its anticonvulsant properties, but must prove to be more effective than phenobarbital or diphenyl-hydantoin. Methyl phenyl ethyl hydantoin was given to 35 patients, aged from three to 45 years, without regard to their type of seizure. Fifteen had grand mal only, 7 petit mal only, 8 a combination of these two forms, 2 had psychomotor seizures only and 3 combined grand mal and psychomotor attacks.

As for results, 11 percent had been free of major seizures for a significant period; 17 percent were greatly improved; eight percent somewhat improved; 50 percent were unchanged and 14 percent had more frequent seizures. Electroencephalograms were made of all patients. Slow or fast wave frequencies predominated in patients helped the most, whereas none having spike and wave discharges were relieved.

The 28 percent of patients who were free of seizures or very greatly improved, is less than one-half the 60 percent obtained by Kozol. Several explanations may be given for this. First, my group included 7 patients with pure petit mal, none of whom experienced benefit. Excluding these patients, 36 percent of other patients were greatly helped. Second, doses used were moderate, only rarely exceeding 0.6 gram daily. Third, in order to determine its relative value, methyl phenyl ethyl hydantoin was used as a substitute for phenobarbital or diphenyl hydantoin and not in combination with one of these. Kozol found that combinations could be profitably employed. Finally Kozol was less ready to stop trial of methyl phenyl ethyl hydantoin in the face of unpleasant side effects.

Of 12 patients who discontinued medication because of side effects, five (or 14 percent of all cases) had a generalized, measles-like rash. Excessive fatigue, sleepiness, gastric symptoms or ataxia accounted for the others. Side effects which may prove trouble-

[2] Reported in this issue of the Journal.

some with diphenyl hydantoin, hypertrophy of the gums, extreme ataxia, and hirsutism were not observed with this new drug. As with all new drugs the long range value can be determined only by time.

Case histories of certain more favorable cases follow:

A 46-year-old lawyer (H. M.) had 22 convulsions in the past eight years, eight of them in the last year, in spite of taking diphenylhydantoin 0.5 gram and phenobarbital 0.13 gram daily. He has been free of seizures during the year that he has taken 0.6 to 0.7 gram daily of methylphenyl ethyl hydantoin.

A boy of 15 (A. G.) with evidence of birth injury had seizures for nine years, a total of approximately 70 grand mal and 2,500 psychomotor, the latter recurring five to 10 times a week. During five months while taking 0.6 to 0.8 gram daily he had no attacks, but psychomotor seizures recurred when the dose was reduced to 0.4 gram.

A boy of 12 (J. T.) has had frequent, left sided jacksonian seizures for eight years, for which no cause could be found. They varied in severity, but in some form recurred from one to 20 times daily, mostly in relation to sleep. Of the many drugs tried, dilantin somewhat reduced the frequency of seizures, but caused intense hypertrophy of gums. Methylphenyl ethyl hydantoin has been used for 14 months. A dose of 0.8 gram daily reduced seizures from several hundred to several a month but could not be maintained because of drowsiness, dizziness and anorexia. On a dose of 0.5 gram daily plus .03 gram phenobarbital zeizures recur about once a day. Recently following the addition ot a preparation of mixed vitamins, appetite, weight and spirits have improved sharply.

A married woman of 39 years (H. M.) has had nocturnal seizures for 20 years, at first infrequently, but now three to six times a night. These are nightmare-like affairs. The presence of a heavy emotional overlay and normal electroencephalograms argued for hysteria. However a brother with unquestioned epilepsy, the presence of tongue biting and injuries from falling from bed, as well as freedom from seizures while taking dilantin seemed to require a diagnosis of epilepsy. Dilantin could not be continued because of the intense fatigue and sleepiness which it caused. With the use of .6 to .8 gram of methyl phenyl ethylhydantoin nocturnal seizures continue but at only a third of the former frequency and there are no unpleasant side effects.

A married woman of 23 years (J. B.) had about 25 grand mal in the past five years. In addition about 15 times a month she had aura of an attack; brief periods of inability to speak with tightening of the jaws but with full retention of consciousness. Five years ago Dr. Dandy had removed an exostosis from the inner table of the skull. Dilantin and phenobarbital gave only temporary aid. While taking 0.3 to 0.4 gram of methyl phenyl ethyl hydantoin and 0.06 gram phenobarbital seizures were entirely absent for five months, but recently the aura returned with pregnancy.

Comment.—Each of three principal anticonvulsants, bromides, phenobarbital and diphenyl hydantoin proved its unquestioned superiority over predecessor drugs. Methyl phenyl ethyl hydantoin will not supersede diphenyl hydantoin in the majority of patients having major seizures. However, even if, as in my experience, only a third of convulsing patients find greatest relief of symptoms from the use of this new drug, it will be welcomed as an ally in the fight against a disease with such protean manifestations.

Conclusions.—Two new drugs increase the range and the effectiveness of the control of epileptic seizures.

Trimethyloxazolidine dione (tridione) used alone has proved wonderfully effective in controlling seizures of the petit mal triad; petit mal (pykno-epilepsy), myoclonic jerks and akinetic seizures. In contrast, grand mal convulsions were not helped or were made worse. Psychomotor seizures were occasionally aided by tridione combined with an anticonvulsant drug.

Methyl phenyl ethyl hydantoin (mesantoin) used in 35 patients, did not help petit mal, but in approximately one-third of patients subject to frequent major seizures it has replaced diphenyl hydantoin (dilantin) with profit, the benefit resulted either from a reduction in the frequency of convulsions or from an absence of the unpleasant side effects of either muscular incoordination or gum hypertrophy. Generalized rash or somnolence were side effects which limited the usefulness of the drug in many patients.

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NOTE.—Since this report was given one of the patients taking these two drugs died of aplastic anemia. Blood of patients taking tridione should be examined at intervals to determine the abundance of platelets and the total number and differential count of leucocytes.

FURTHER OBSERVATIONS ON THE USE OF TRIDIONE IN THE CONTROL OF PSYCHOMOTOR ATTACKS[1]

RUSSELL N. DEJONG, M. D., ANN ARBOR, MICHIGAN

One should beware of optimism in reporting the efficacy of any new drug. There are many conditions, however, which have been so baffling from a therapeutic standpoint that any possible clue to their amelioration or cure should be made public in order that a thorough investigation may be carried out by impartial observers.

Many advances have been made in recent years in the treatment of the convulsive disorders. The bromides, later phenobarbital, and more recently sodium diphenylhydantoinate have proved to be quite effective in the treatment of grand mal seizures, and in many instances these major attacks can be adequately controlled. Petit mal attacks, however, and psychomotor seizures, the two other most frequent manifestations of the cerebral dysrhythmias, have defied therapeutic approach, and the usual anticonvulsant drugs have not been effective in controlling them. Bromides or phenobarbital may even induce amnesic or psychotic-like episodes or may increase the frequency of petit mal and psychomotor attacks. Sodium diphenylhydantoinate has been reported to be of value, as had glutamic acid, but in our experience neither of these has been very effective.

Tridione (3,5,5-trimethyloxazolidine-2,4-dione, Abbott) is an entirely new compound possessing analgesic properties. It has also been found to have hypnotic action, to be effective in the control of convulsions produced in experimental animals by the use of toxins, and to raise the electrical threshold at which convulsions appear in rats(1). In human beings tridione possesses analgesic and mild sedative action. Recently Lennox (2) and others have reported that tridione is of more benefit in the relief of petit mal seizures than any other therapeutic measure yet tried. Thorne(3) has reported its use in mentally defective institutionalized epileptics; in large doses it proved to be an effective anticonvulsant and to exhibit marked sedative action.

A preliminary observation has been presented on the use of tridione in the control of psychomotor seizures(4). This study has been continued to include a larger number of patients, and the patients have been followed over a longer period of time. More prolonged observation confirms the original impression that tridione is effective in the control of psychomotor seizures as well as in the amelioration of petit mal attacks, but certain additional conclusions should be reported.

The therapeutic effect of tridione has been studied in some 60 patients with various manifestations of paroxysmal cerebral dysrhythmia over a period of nearly one year. Interest has been directed predominantly toward patients with psychomotor seizures, and in 28 of the patients these were the outstanding clinical manifestations. Most of these patients, however, were also subject to grand mal or petit mal attacks, or had electroencephalographic evidence of a mixed type of disorder. In many instances the grand mal attacks had been fairly adequately controlled by phenobarbital and/or sodium diphenylhydantoinate, but in none were the psychomotor attacks controlled by these drugs. Of the 28 patients with psychomotor attacks who were studied for long enough periods of time for appraisal, 3 (10.7%) had psychomotor attacks alone; 22 (78.6%) had psychomotor and grand mal attacks, and 3 (10.7%) had psychomotor and petit mal attacks.

Statistical results in the use of tridione in psychomotor attacks show that in 7 of the patients (25%), the seizures were completely controlled by the use of tridione. In one patient who had only psychomotor attacks tridione alone was effective, but in the other 2 patients who had only psychomotor seizures a combination of tridione and sodium diphenylhydantoinate was necessary. The other 4 patients who were completely

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

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controlled had both psychomotor and grand mal attacks, and a combination of tridione with either sodium diphenylhydantoinate or phenobarbital was necessary for complete amelioration of both types of seizures. In 17 patients (60.7%), 15 with psychomotor and grand mal attacks and 2 with psychomotor and petit mal attacks, tridione in combination with sodium diphenylhydantoinate and/or phenobarbital brought about definite improvement but not complete amelioration. In some of these patients observation over an insufficiently long period of time suggested that there had been complete control of the seizures, but more prolonged observation showed that the attacks were decreased in frequency but not completely eliminated. In every instance, however, the improvement in the psychomotor attacks was more evident than was the amelioration of the grand mal seizures. In all of these individuals the attacks were definitely reduced in frequency and in severity, and many patients, incapacitated previously, were able to resume gainful employment. In 4 patients (14.3%) the tridione, even in combination with the other anticonvulsant drugs, was not effective in the control of seizures. Three of these patients had psychomotor and grand mal attacks, and one had psychomotor and petit mal attacks. In every instance in which tridione was effective it not only reduced the frequency of the seizures or stopped them completely, but it also observed to bring about a definite psychologic improvement, and to relieve the irritability and confusion that are sometimes present between attacks.

Toxic symptoms, all of slight clinical significance, were noted in only 6 of the above patients. Two noticed slight fatigue and drowsiness; one noted visual symptoms, consisting of sensitivity to light and blurring of vision; and one noticed blurring of vision plus drowsiness. Among the 4 patients who failed to respond to the therapy, 2 experienced an increase in grand mal attacks. Among the total group of 60 patients, however, many of whom had principally grand mal attacks, these toxic symptoms were somewhat more frequent, and a total of 6 noted an increase in grand mal attacks, while 4 observed visual symptoms. A skin eruption appeared in one patient.

CONCLUSIONS

On the basis of the above observations, certain conclusions may be reached. The most important of these are as follows:

Tridione is an important adjunct in the therapy of the cerebral dysrhythmias, especially in the treatment of psychomotor seizures. While it may completely control the attacks in certain instances, it has not proved to be quite as successful as our earlier report suggested. It is, however, the most significant addition to date in the drug therapy of seizures of this type. Used alone it is effective in certain instances, but it is most helpful if used in combination with sodium diphenylhydantoinate and/or phenobarbital. Possibly a regulation of the dosage of the various anticonvulsant drugs to suit the individual patient may afford the most complete relief. It is of interest that many seizures which had been previously interpreted as atypical grand mal attacks which did not respond to the usual anticonvulsant medication were found on closer observation to be psychomotor attacks. Many of these were controlled by the use of tridione. Tridione therapy results not only in an amelioration of the attacks, but also in the relief of the irritability and confusion that are sometimes present between attacks.

Tridione does not appear to be of value in the treatment of grand mal attacks, and it may bring to the fore or precipitate grand mal seizures if used alone.

Tridione is an important adjunct in the therapy of petit mal attacks, especially if used in combination with other anticonvulsants.

Tridione has failed to be effective principally in cerebral dysrhythmias secondary to organic cerebral disease. In the 4 patients with psychomotor seizures in whom the drug was of no value, 2 had developed their attacks following a brain abscess, one had developed the seizures following a severe head injury, and one had psychomotor attacks in association with other manifestations of a degenerative cerebral disease.

Toxic symptoms occur in occasional patients who show clinical response to tridione, but in most instances these do not constitute a serious contraindication to the use of the drug, and most patients continue with its use in spite of these minor complications.

SUMMARY

Tridione, a new addition to the treatment of the cerebral dysrhythmias, is helpful in the control of psychomotor seizures. While effective in certain instances if used alone, it is most helpful if used in combination with sodium diphenylhydantoinate and/or phenobarbital.

Toxic symptoms are infrequent in patients who respond to the drug, and do not constitute an important contraindication to its use.

Further research on the oxazolidine-2,-4-dione derivatives and related drugs may afford further advances in the therapy of epilepsy.

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INCIDENCE OF NEUROPSYCHIATRIC DISEASE IN THE DEMOBILIZED VETERAN

A Study of 10,000 Army Separatees

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The military neuropsychiatrist has never played a more important rôle than in this emergency, and the Army Medical Corps has good reason to be proud of its psychiatric program(1). The psychiatrist has been assigned to medical units as an integral part in almost all echelons of army organization. The soldier made his first contact with him at the induction center where many actual or potential neuropsychiatric cases were eliminated(2, 3, 4). Then, as the soldier faced the stresses and problems of adjustment incidental to being a part of a complicated organization as well as to the stress of combat, psychiatric attention was available throughout. In this way, an elaborate and continuous neuropsychiatric screening process was established.

With hostilities now at end and rapid demobilization taking place, there is considerable speculation in both the professional journals and popular press as to the incidence and severity of neuropsychiatric "adjustment problems" and frank neuropsychiatric disorders in the returning veteran. There can be little doubt that this problem has been overemphasized, but this overemphasis has served a useful purpose in stimulating the public and medical profession to ask for improved facilities for the assistance of those veterans who have psychological and emotional problems. The purpose of this paper is threefold: (1) To determine the frequency, nature and cause of these problems, (2) To determine the amount of assistance likely to be needed by the discharged veteran in finding a solution to his readjustment difficulties, and (3) To study prognostic factors by evaluating the status of neuropsychiatric cases at the time of discharge who were diagnosed, treated and returned to duty prior to demobilization.

A vital fact to be considered is that soldiers who are to be discharged under demobilization regulations are figuratively speaking "well men." They have been through considerable stress and have more or less successfully met the physical and emotional problems of army life during a period of hardship and combat. The mentally and physically ill are not included in this study as they are discharged from the Army through the hospitals.

METHOD

Unit A of the Army Service Forces Separation Center at Camp Atterbury, Indiana, is organized to examine and discharge 120 or more men per hour for 17 hours daily. From the vast number processed by this center, the authors have examined the records of 10,000 soldiers separated from the Army under the adjusted service ratings in existence during December 1945 and January 1946. These represented men between the ages of 20 and 35, most of whom had seen combat in one or more theaters of the war or who had been overseas and had had 3 or more years service. Commissioned officers and members of the WAC were not included. The majority of men were from the States of Michigan, Indiana, Kentucky, Ohio and West Virginia and were representative of the population of those states.

The examination of these soldiers was performed in the manner prescribed by appropriate Army Technical Bulletins. Each man was given a medical form headed with his name, rank, address and serial number. He was then given an orientation lecture at which time he was advised to have all medical and dental care done prior to being separated from the Army. He was urged to disclose all illnesses and injuries suffered while in the Army and was advised of his right to

file a claim for disability pension. He then proceeded through a series of examining rooms designated as medical stations. At each station, a medical officer completed an assigned part of the physical examination, made his entry on the medical form and advanced the separatee to the next medical officer on the processing line.

A medical and psychiatric history was taken at the first station by trained enlisted and civilian personnel under supervision of a medical officer. Additional questions were asked by medical officers as the examination progressed and it is believed that a satisfactory history was obtained in almost every case. Each soldier was specifically asked if he was ever treated or reclassified because of "nervousness," psychoneurosis, "combat fatigue" or "nervous breakdown" and whether he had any such complaints at that time. Each was asked specifically if he had "inward or outward nervousness" since that question seemed to receive positive response from the greatest variety of reaction types. He was also asked concerning chronic fatigue, depression, irritability and whether he had ever been court martialed or appeared before special boards. Further questioning was at the discretion of the interviewer and depended upon the appearance and behavior of the separatee. In all cases, any positive response or observation was recorded for the psychiatrists' attention. Soldiers with a multiplicity of somatic complaints or specific complaints in which any of the medical examiners felt that there was a large psychogenic element, were also referred to the psychiatrist. In addition, many soldiers saw the psychiatrist at their specific request.

At the last station the medical examination form was carefully scrutinized for positive findings and if none were present the examination was considered completed. In the event positive findings were present, the man was referred to a review board composed of three medical officers, one of whom was a psychiatrist, for final medical opinion and appropriate disposition. The reviewing psychiatrist was in each instance one of the authors.

The interview took place in the separate room used by the review board which provided for ample privacy and quiet, thus insuring a satisfactory talk. Enough time was devoted to each soldier to enable the psychiatrist to arrive at a satisfactory diagnosis(5). In a few cases of sufficient severity, the final decision was postponed and the man sent to the neuropsychiatric clinic of Wakeman General Hospital located nearby for further observation and consultation or diagnostic procedures not available to the authors. Cases diagnosed as psychosis or severe psychoneurosis were hospitalized directly. As prescribed by army regulations, diagnoses were recorded only when they were agreed upon by a board of three medical officers, one of whom was the psychiatrist.

In compiling data such as presented here, the necessity of adequate terminology and diagnostic standards cannot be too strongly stressed. Obviously, the figures would be valueless if every soldier who claimed that he was "nervous" or had a "nervous stomach" were classified as neurotic. There was also a strong moral and legal obligation for careful evaluation because of the nature and circumstances of the examination. There is still a great deal of stigma attached to a neuropsychiatric diagnosis and to give a soldier such a label a few hours before he returns to civilian life can be grossly unjust, if it is not deserved. On the other hand, diagnosing a condition which may be disabling in later life insures the veteran of compensation to which he might be entitled. The converse of this is also true for there is obligation to protect the government. To meet these problems, the writers adhered closely to the terminology and diagnostic standards set by the Surgeon General's Office in Army Technical Bulletin, TB Med 203, amplifications of such criteria as elucidated in the publications of the School of Military Neuropsychiatry, and in doubtful cases, standard textbooks. A diagnosis required definite objective and subjective manifestations. The term psychoneurosis was never used as a diagnostic term, instead the specific reaction type was named. Diagnoses were recorded under four headings: (1) The diagnosis and manifestations, (2) The precipitating stress, (3) The predisposition,

(4) The incapacity. For example, a diagnosis was recorded as follows:

Diagnosis: Anxiety reaction, chronic, mild severity manifested by insomnia, palpitations, tachycardia, hyperhidrosis and trembling.
The precipitating stress: Severe, 45 days intensive combat as an infantryman terminated by multiple shrapnel wounds.
Predisposition: Soldier has always been stable and well adjusted. No predisposition evident.
Impairment of Functional Capacity Due to the Psychiatric Disorder: None.

In many cases, all factors could not be fully evaluated. These were recorded as "not determined." If there were any evidences of latent tendencies or symptoms suggestive of a future disability, these were recorded for the veteran's future protection even though a psychiatric diagnosis could not be made at that time.

Most soldiers answered questions readily. Those who exaggerated their symptoms in hope of compensation were few; they were easily detected as they presented few of the objective and subjective signs and symptoms necessary for a diagnosis. There were probably a few soldiers that refused to complain because of "pride" or because of fear that their discharge would be delayed. All men were assured that there would be small likelihood of any delay and that it would be greatly to their advantage to have all complaints recorded. The effectiveness of this assurance was seen in the uninhibited response to the interviewers' questioning.

The danger of inflicting psychic trauma by a diagnosis repugnant to the individual was avoided by the use of cryptic abbreviations whenever possible. The ease of rapport and the confidence the man had in the psychiatrist is a tribute to the good name the military neuropsychiatrist has earned. Most of the men were given some reassurance regarding their complaints or enough insight to permit them to seek further psychiatric guidance in civilian life.

DATA

A total of 644 of the 10,000 separatees investigated came to the attention of the psychiatrist by the manner described. Of this group, 540 men (5.40% of the sum total of men) had subjective complaints. The remaining 104 were seen only because of a previous history of neuropsychiatric disorder and not because of complaints.

TABLE 1

INCIDENCE OF PSYCHIATRIC COMPLAINTS AND DISORDERS AMONG 10,000 TYPICAL SEPARATEES

	No.	Percent
I. Separatees examined	10,000	100.00
II. Separatees reaching attention of psychiatrist	644	6.44
III. Separatees with subjective complaints suggestive of psychiatric disorder	540	5.40
IV. Separatees with record of a previous psychiatric diagnosis made while in the Army	204	2.04
a. Those having no psychiatric illness at present	104	1.04
b. Those with present illness	100	1.00
V. Separatees on whom a psychiatric diagnosis could be made	257	2.57
a. Those with estimated partial disability from such condition	51	0.51
b. Those without evidence of disability	158	1.58
c. Those in whom the presence or absence of disability could not be determined prior to return to civilian life	48	0.48

Table 1 shows the further subdivisions of these figures. There were 204 separatees who had previously been patients in army hospitals or installations for neuropsychiatric disease and who had been treated because of such ailments. Of this group, 104 were found to be completely symptom free and 100 to have residual symptoms. So few of the 10,000 records studied showed a history of hospitalization or treatment for neuropsychiatric disorder in civilian life that they were not an important group. Evidently such men were eliminated at induction centers or in army hospitals. Actually, only three such cases were encountered. This figure is interesting in view of the fact that a much higher percent of army neuropsychiatric hospital patients have a history of

civilian hospitalization (personal observation of authors).

Altogether 257 men (2.57%) presented sufficient evidence to merit a psychiatric diagnosis and of these, only 51 men (0.51%) definitely had any disability.

Table 2 shows the incidence of the different neuropsychiatric diseases encountered, the number of men having each condition, and the different categories of disability. The term disability has been interpreted to mean only the degree of ineffectiveness resulting from the current psychiatric illness. Where it could not be determined, it is so stated. No conjectures were hazarded as to future disability except as a matter of record in a few cases. In a small number of cases, two or more diagnoses were used. These were tabulated under the more significant diagnostic category. One hundred ninety cases were classified as anxiety reaction (anxiety state) and of these, 36 showed definite partial disability. Conversion reactions were not numerous probably because such conditions being of a more tangible nature found their way into the hospital for treatment prior to separation. A total of 24 psychogenic somatization reactions were observed, all of which were diagnosed on positive criteria of psychogenic disturbance rather than by exclusion of organic disease alone. There was a group that had recently recovered from true organic disease but still presented some of the symptoms of such disease. These were considered residuals of the disease and the soldier regarded as still in a convalescent stage. An appropriate neuropsychiatric diagnosis was given if warranted. The diagnosis of concussion was made on a history of true head injury and not "shell shock." There are few or no men listed under the categories of the more severe conditions. It should be apparent that most men in these categories would not be ready for demobilization unless they had been treated or well on the way to recovery. Nevertheless, there were a very few men seen during the period of this study who are not included in any of the tables because their discharge was deferred pending treatment. These represented the group where psychosis or severe psychoneurosis was diagnosed. This group is

TABLE 2

TYPES AND FREQUENCY OF PSYCHIATRIC DIAGNOSES ENCOUNTERED IN THIS STUDY

Diagnosis	Total	Without disability	With mild disability	With moderate disability	With disability not determined
Anxiety reaction	190	135	30	6	19
Conversion reaction	9	4	5	0	0
Phobic reaction	2	2	0	0	0
Neurotic depressive reaction	1	0	1	0	0
Psychogenic gastrointestinal reaction	13	9	3	0	1
Psychogenic genitourinary reaction	1	1	0	0	0
Psychogenic cardiovascular reaction	7	3	1	0	3
Psychogenic respiratory reaction	1	0	1	0	0
Psychogenic asthenic reaction	2	1	1	0	0
Neuropathic traits residual of amoebiasis	1	0	1	0	0
Neuropathic traits residual of malaria	3	0	0	0	3
Neuropathic traits attributed to wounds	2	0	0	0	2
Concussion, cerebral, residual of	12	2	1	1	8
Mental deficiency, primary	3	0	0	0	3
Schizoid personality	3	0	0	0	3
Schizophrenic reaction, latent	1	0	0	0	1
Emotional instability	1	0	0	0	1
Immaturity with symptomatic habit reaction (stammering)	1	0	0	0	1
Immaturity with symptomatic habit reaction (enuresis)	2	0	0	0	2
Passive dependency reaction	2	1	0	0	1
Total of all diagnosis	257	158	44	7	48

small but of some interest. Some of these men made a satisfactory adjustment in the Army for 3 to 4 years in spite of their disorder and it is ironic that they should be diagnosed a few minutes prior to separation. They were all directly hospitalized for treatment.

Table 3 summarized the findings of the 204 men who had a previous history of psychiatric disorders while on army duty. Of these, 174 had been hospitalized while in the Army and among them 116 were definitely combat precipitated cases. Those cases not precipitated by combat, or where the precipitating stress was indeterminate, form individually smaller groups. Only 30 men, of whom 15 were combat precipitated cases, had a previous history of psychiatric disorder without hospitalization.

Table 4 shows the status of the above group at the time of this examination. A greater number of the cases precipitated by combat stress benefited by treatment and became symptom free than those precipitated by stress other than combat.

TABLE 3

SUMMARY OF CASES WITH PREVIOUS HISTORY OF NEUROPSYCHIATRIC DISORDER

	No.	Percent
Number of such cases encountered in this study	204	100.0
Those which had been hospitalized	174	85.3
a. Cases attributed to combat stress	116	56.8
b. Cases attributed to stress other than combat	49	24.1
c. Cases in which stress could not be determined	9	4.4
Those which had not been hospitalized	30	14.7
a. Cases attributed to combat stress	15	7.4
b. Cases attributed to stress other than combat	13	6.4
c. Cases in which stress could not be determined	2	0.9

TABLE 4

PRESENT STATUS OF CASES WITH PREVIOUS NEUROPSYCHIATRIC DIAGNOSIS EVIDENTLY RETURNED TO DUTY AS RECOVERED OR IMPROVED

	No.	Percent
I. Combat precipitated cases	131	100.0
a. Evidently fully recovered	77	58.8
b. Still symptomatic	54	41.2
II. Cases precipitated by stress other than combat	62	100.0
a. Evidently fully recovered	21	33.8
b. Still symptomatic	41	66.2
III. Cases in which stress could not be determined	11	100.0
a. Evidently fully recovered	6	54.5
b. Still symptomatic	5	45.5

COMMENT

Despite the widespread fear expressed in the lay press, the number of soldiers presenting psychiatric problems upon returning to civilian life is small. This percentage appears even more favorable when compared to the estimated incidence of neurosis in the general civilian population as shown by the neuropsychiatric examination in the induction centers (2, 3, 4). The figures given here are not considered an index to the neuropsychiatric disorders the veteran will present in future years, but they do show that the great majority of men discharged from the Army have no psychiatric problems of any significance. Many cases presented problems which were incidental rather than as a result of their service. A few had strong guilt feelings because of "misdeeds" committed while away from home and dreaded returning to their wives or to a strict parental environment. There were some who had marital problems caused by long absence from wives while many others had found the Army a haven from intolerable family or

social problems with which they were again confronted.

Many of these problems will undoubtedly resolve without help, but others will require further psychiatric aid(6). Although the percentage of men with neuropsychiatric disability is small, the total number is not negligible. The Army Medical Corps has done an excellent job in promoting psychiatry in the eyes of millions of its men. These men no longer feel that only a "psycho" sees the psychiatrist. From the experience gained here where several hundred thousands of men have been seen, there is no doubt that the psychiatrist has been accepted wholeheartedly. When these men are troubled with psychiatric problems in the future, they will expect skilled professional assistance within easy availability as they have had in the Army. There will be not only those conditions disabling at present, but also those minor problems which might form the nucleus of a more serious disorder later which could be prevented.

While those cases with mildly disabling psychiatric syndromes were offered hospital treatment at the time of discharge, it was usually refused. Hospital treatment was not often indicated because it is time consuming and would keep the patient from home and work much against his wishes. Moreover, aid in adjustment is likely to function best if given as an outpatient service in civilian environment.

Of the men who were seen because of a history of previous hospitalization for neuropsychiatric reasons, a little over half had no complaints at the time of separation. This certainly indicated the effectiveness of the reconditioning program in a large number of men. It is also of interest to note how many more complaints were received from men whose disorder was not combat precipitated. Although the figures are inadequate to draw definite conclusions, they reiterate the principle that personalities yielding to a greater stress are basically better integrated than those yielding to a lesser stress(7). This is further borne out by the total figures showing that in those men with no previous psychiatric history, fewest complaints were recorded, while in those with a previous army psychiatric history, the number of complaints was the highest where the precipitating stress was the least.

This study does not include the more serious mental diseases. All such cases are given treatment until maximum benefit is obtained and many of them are finally discharged through medical channels. This group forms only a small portion of the Army whereas the men studied here are discharged under demobilization regulations and are representative of the greater bulk of the Army.

The ease with which these cases fit into army diagnostic groups showed the advantage of the terminology and its standard use. The four part diagnosis including manifestations and severity, provides a clear summary of the patient's disorder.

CONCLUSIONS

1. The neuropsychiatric study of 10,000 separatees demobilized under the regulations existing during December 1945 and January 1946 showed that only 257 men (2.57%) had sufficient complaints to warrant a neuropsychiatric diagnosis. Of these, 51, or 0.51%, had a disorder sufficient in severity to cause them some degree of incapacity.

2. The lay press has overestimated the psychological problem of the veteran upon returning home.

3. Those cases whose neuropsychiatric disorders were precipitated by combat show a better response to reconditioning and had fewer complaints upon separation then those whose disorder was precipitated by factors other than combat.

4. The disorders discussed in this paper present a group for which hospital care is neither necessary nor desirable. The veteran has learned to accept the psychiatrist while in the Army and will expect skilled professional assistance within easy availability when out of the Army.

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REHABILITATION OF MILITARY OFFENDERS AT THE NINTH SERVICE COMMAND REHABILITATION CENTER

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The rehabilitation of the sick and wounded is one of the outstanding medical contributions of the war, and its publicity is richly deserved. Equally prominent but less well recognized has been the reclamation of many thousand casuals of another type—the soldiers sentenced to confinement by general court-martial. As ineffectual for combat as the most disabled of the sick and wounded, they constituted an appreciable loss of manpower; and their reclamation is a brilliant chapter in the history of the war. The offenses were not heinous for the most part, and the offenders were salvable youths whose services could ultimately be utilized. They were gathering in large numbers, creating a vexing problem. Guardhouses were overcrowded and housing was inadequate. At a time when trained soldiers were needed most, these offenders were marking time and deriving questionable benefits from confinement.

On 14 September 1942, the Commanding General, N. S. C., created the "Disciplinary Training Camp" at the Fair Grounds in Turlock, California, and all general prisoners within his jurisdiction were transferred thereto, relieving the congestion at the guardhouses, and simultaneously ensuring the prisoners' uninterrupted training. Garrison prisoners (sentences imposed by minor courts-martial) also were sent for training but in a few months they stopped coming (when the guardhouse overcrowding had been relieved).

With the great mobility characterizing an army in the process of mobilization, it was difficult for many organizations to gather the *corpus delicti* necessary for conviction at courts-martial. Soldiers AWOL at great distances from their units were not returned for trial but were transferred to the disciplinary training camp and thus appropriate disciplinary action was not delayed. While awaiting trial, these men were being trained and were not losing time in preparation for their future military careers. Their sentences imposed, they continued with their training until they were deemed to have benefited sufficiently to be restored to duty. Thus the ends of justice were served and, during the critical war emergency, the men could become valuable assets to their new units. The dishonorable discharge, one of the three forms of punishment imposed by general courts-martial, was suspended by the reviewing authority in most instances, making it possible for the service record and allied papers to accompany the prisoner to his next organization when he was restored to duty.

In November 1942 five key officers of each of these new installations went to the disciplinary barracks at Fort Leavenworth, Kansas, for training in military penal practice. The disciplinary training camp was then renamed "Detention and Rehabilitation Center," and as the new correctional methods became established and the training program stabilized, the name changed once more, and the camp became known as the "Rehabilitation Center" (RC), *thus emphasizing the rehabilitation aspect and ignoring the detention or punitive aspect.*

Also received for training were prisoners sentenced overseas. They came from Alaska, the Aleutians, Hawaii, China-Burma-India, the South Pacific, Australia and the Caribbean areas. In the closing phases of the war, when rehabilitation centers were well established overseas, the overseas prisoners who still came to the NSC rehabilitation center came only for temporary confinement, and to wait transfer to the disciplinary barracks.

When it was obvious that a prisoner would not succeed at the rehabilitation center, and that his restoration to duty was unlikely, he was transferred to the disciplinary barracks. Also transferred were prisoners whose dishonorable discharge had not been suspended by the reviewing authority. Their records had been sent to the Adjutant General and

[1] Staff, Stockton (Calif.) State Hospital (on military leave).

the technical and other obstacles to restoration were at first virtually insurmountable. Most of those whose dishonorable discharge had been suspended, whose courts-martial order designated the U. S. disciplinary barracks as the place of confinement (having been sent to the rehabilitation center only to await a vacancy at the disciplinary barracks) remained at the rehabilitation center for a sufficient period to be restored to duty and were not transferred to the disciplinary barracks.

For the non-restorable prisoners who gradually increased in number, appropriate segregation and work projects were provided. The two groups did not mingle. A 50-acre victory garden provided work and also helped alleviate the critical wartime food situation. While the branches of the disciplinary barracks did increase sufficiently to accommodate the increase in this type of prisoner, their activation lagged a good deal so that the percentage of non-restorables gradually increased until they constituted a third of the prisoners confined in 1944-45. While an occasional prisoner was confined for a period as short as 6 months, the great majority remained 9-10 months, a few had to remain for a year, and an exceptional case as long as 18 months.

In December 1943(1) instructions were issued that soldiers awaiting trial by general court-martial would be examined by a medical officer (a psychiatrist, if available) to look into their mental status to determine the type of institution in which they would be confined. To the disciplinary barracks were to be sent prisoners suffering from serious mental or neurological disorders such as: mental deficiency, psychopathic personality, major abnormalities of mood, psychoneurotic disorder, prepsychotic, postpsychotic and schizophrenic personalities, chronic alcoholism and drug addiction, syphilis of the central nervous system (neuro-syphilis of any form—general paresis, tabes dorsalis, meningovascular syphilis), sexual perversions, stammering to such a degree that the prisoner is unable to express himself clearly or to repeat commands. These examinations helped identify prisoners with serious disorders, but the rehabilitation center's problems did not diminish, for with space seldom available at the disciplinary barracks such prisoners still came to the rehabilitation center in large numbers. For the most part they were not put through the rehabilitation program, but were utilized in farm work and in housekeeping assignments.

A psychiatrist compiled all reports for the psychiatry and sociology board (P & S Board). A sociologist prepared histories after interviewing prisoners and reviewing all their records. The post surgeon submitted physical examination reports, and a psychiatrist the psychiatric appraisal. Complete records were available for all prisoners when the psychiatry and sociology board interviewed them to determine their disposition. Sources of information included the family, former employers, former military organizations, the Federal Bureau of Investigation, local law-enforcing agencies, penal institutions where prisoners formerly had been confined, schools and other agencies. All prisoners had the benefit of a thorough investigation and study, and they were interviewed at various stages of training. At first they were seen five months after arrival (when restoration to duty was being contemplated). This procedure proved inadequate, and towards the end of the war prisoners' classification reports were prepared within a month after admission, and a second time two months later to check on their progress. At the third hearing, after completion of the full training program, final disposition was made and they were usually restored to duty two months later (9-10 months after arrival).

The psychiatry and sociology board (or clemency board) gradually changed in makeup as well as in name; in 1945 it was the "classification board" and comprised 5 officers ranking from lieutenant to lieutenant colonel. Some members attended every session of the board; others rotated. Five made a quorum. The post psychiatrist, or his assistant, was required to attend and was a board member.

In three years almost 8000 prisoners were processed. Though the restoration rate was 83% in 1943, it was subsequently reduced with a change in policy, and for 1943-45 it was 56%.

Psychotic Reactions(2)

Psychotic reactions were recognized in 361 prisoners (4.6%). Almost without exception these prisoners were sent to Hammond General Hospital where electroshock therapy induced satisfactory remissions in a large percentage. Of these, 14% were "prison psychoses"; and in them electroshock treatment produced best results. Their symptoms were mostly episodes of confusion, excitement and depression in various combinations. Recovered in 1 to 2 months, they were returned to the rehabilitation center but were not restored to duty, for as a rule their maladjustment had been lifelong and too profound to warrant believing that they could adapt to military life. At the NSC rehabilitation center, the incidence of psychoses was higher than that reported in others (0.6%, 0.7% and 1%, in three whose reports were available) but was lower than the 6% in Sing Sing psychiatric clinic's series of 2000 prisoners (this series having been selected as a civilian counterpart). Of the prison psychoses 68.7%, and of the other psychoses 90.4%, were recognized within 5 months of arrival. Fifty-two percent of the psychoses were detected in routine interviews. Medical officers suspected alienation and referred 19% to the psychiatrist, and non-medical personnel referred 28%. While many families requested examination in the belief that the prisoner was "out of his mind," only 1.4% of the psychotics were recognized in examinations requested in this manner.

Mental deficiency was an important etiological factor, for it was found in almost a fourth of the psychotics. Of the 308 psychotics whose hospital records showed psychometric test findings, 69 (22.4%) were rated "inferior" in their intelligence test scores. "Psychosis with mental deficiency" was the diagnosis made by the hospital's psychiatric staff in 21 of these 69 cases. The Bellevue-Wechsler and Rohrschach tests were used in all cases.

The racial factor was recognized as important, for of the latter group of 21, 16 were Negroes. Of the 69 psychotics with inferior intelligence, 56 (81%) were Negroes. Feeble-mindedness thus was associated with psychoses four times as frequently in the colored prisoners as in Caucasians. Another significant observation is that the colored prisoners were three times more susceptible to psychotic breakdown than their Caucasian fellows since Negroes constituted only 15.8% of the total prisoners confined, but comprised 48% of the psychotics (of the records of the 361 psychotics, the race was mentioned in 346; and of these 166 were Negroes).

Habitual use of marijuana may have been a contributory factor in a few of the early psychotic breakdowns, for withdrawal symptoms seemed to be especially troublesome in these few cases. In 500 unselected consecutive social histories obtained through the Red Cross, 5 (1%) indicated that the subject was a known addict. The records of the 361 psychotics showed that specific inquiry had been made regarding the habitual use of the drug in 214 cases; and in these reports there was prior recorded evidence or an admission in an interview in 38 (17.8%). These were mostly Negroes from all sections of the country (mostly urban); the remaining few were of Mexican origin and came from the Southwest.

Their country's fortunes of war had a notable effect on the incidence of psychotic reactions among the rehabilitation center prisoners who were temporarily in a haven of refuge, immune from the hazards of war. Until the North African campaign (spring of 1943) very few psychoses were recognized. While United States soldiers were gathering in Britain and preparing for "D-Day," the number began to rise and perhaps a dozen were recognized quarterly. When the second front in Europe was imminent, the incidence rose sharply to more than 75 quarterly. It remained at that high rate until victory was apparent in the middle of the winter 1944-45, when the rate dropped precipitously to 28 per quarter. After "VE-Day" it was 25; and after "VJ-Day," 2. By way of contrast, in a hospital in a basic training camp the rate of psychotic admissions remained at about .44% until "VE-Day," when it dropped to 0.2% or half its former rate. The reduction in rate in the soldiers on duty was not nearly as precipitous as in the prisoners in confinement. The rehabilitation census remained between 1300 and 1700 most of the time. Other factors possibly in-

fluencing the development of psychotic reactions did not change appreciably. The type of offender, nature of the rehabilitation program, as well as the type and reaction of the personnel with whom prisoners came in daily contact, remained unchanged. The program had been lengthened long before the wave of psychoses appeared, and it did not change in the 18-month period in which the rate of psychoses fluctuated so violently. Since the entire setting remained unchanged after "VE-Day," psychoses should not have decreased so rapidly with the ending of the war, if cessation of hostilities were not a decisive influence. But the truth of the matter is that *the fortunes of war did have a decisive influence on the prisoners; and the incidental mental conflicts and emotional stresses precipitated psychoses in the less well endowed prisoners, and aggravated the symptoms in the previously unrecognized psychotics to such a degree that detection became less difficult.* The conflicts incident to their confinement, while the ultimate outcome of the war was still in doubt, proved to be too much for many of them and they took flight from reality by developing a psychosis.

The type of prisoners seen at the RC did not change in the 3 years of its existence. At least half the prisoners showed no significant mental or emotional aberration. Statistical records of diagnoses were kept in 1945 and they showed the following percentages:

Diagnoses	Low, percent	High, percent
Psychopathic personality	23.5	42.
Mental deficiency	1.3	4.2
Chronic alcoholism	2.1	5.6
Psychoneurosis	2.8	7.4

The incidence of various types of psychoses in the RC (1) is compared with (2) 186 enlisted men discharged from an army hospital, (3) 100 veterans examined for pensions, and (4) 100 former officers at St. Elizabeth's Hospital:

Classification	(1) Prisoners, percent	(2) Soldiers, percent	(3) Veterans, percent	(4) Officers, percent
Dementia præcox	72.6	60.75	80.	35.7
Psychosis with mental deficiency	5.8	16.12	2.94	0.
Psychosis due to trauma	3.9	0.54	2.94	0.
Psychosis with epilepsy	0.83	0.54	0.	0.
Psychosis with other diseases of nervous system	0.56	0.	0.	0.
Prison psychosis	13.85	0.	0.	0.
Psychosis unclassified type	1.69	7.53	5.7	16.7
Manic-depressive psychosis	0.	4.3	5.7	40.5
Psychosis with psychopathic personality	0.	7.	2.94	1.2
Alcoholic psychosis	0.28	3.23	0.	1.2
Dementia paralytica	0.	0.	0.	2.4

Very few psychotics had been overseas, even less had been in action, and only two or three had been wounded. Head injury was an insignificant and non-contributory factor.

In the prison psychoses 40 of 50 (80%) showed confusion; but only 10 of 21 (47.6%) of the "psychoses with mental deficiency" showed it. Depression was present in 21 of 50 (58%) in the former; and in 13 of 21 (62%) in the latter. None of the numerous attempts at self-mutilation nor suicidal gestures accompanying these depressions led to serious injury or death. Episodes of excitement occurred in 19 of the 50 (38%) prison psychoses, and in 13 of the 21 (62%) mental defectives. With few exceptions, these episodes occurred only after prisoners had been confined for some time (at least 6 months); but confusion and depression occurred both early and late in confinement.

The psychoses in prisoners resembled those seen in other soldiers in war time, as described in the literature of World Wars I and II. They differed from psychoses seen in civilian life in that they were more sudden and precipitous in onset, were relatively brief, and resulted in a favorable outcome more frequently. The cause and effect relationship between environmental stress and psychotic reaction often was clearly evident, especially in the reactions diagnosed "prison psychosis." Patients were hospitalized promptly, and there was excellent liaison with Hammond General Hospital 13 miles away. Psychotics whose breakdown was considered incidental to confinement, were returned to the RC when they recovered. In

the other psychoses, if the reactions were considered to have existed prior to trial, the sentences were mitigated, and the prisoners restored to duty and medically discharged for care and treatment in a non-military hospital.

As a rule psychotic reactions subsided within two months. When some of the patients were transferred to another hospital, they were frequently in such good condition on arrival that the receiving staff in many instances could find little if any evidence of psychosis. This was so noticeable that in some cases the diagnosis was questioned. Thus, in one group of 27, many of whom were in remission on arrival at the second hospital, an investigation showed that the service command neuropsychiatric consultant had verified the diagnosis in the acute phase of the illness in 21 cases. Incidentally, such experiences had been recorded in World War I.

The hallucinations of the psychotics at the RC showed the features described in psychiatric texts under "pseudo-hallucinations." These experiences were dream-like states involving multiple sensory spheres simultaneously. At times they were indistinguishable from intense fantasy; and occasionally one could trace the transition from fantasy to pseudo-hallucination. The mother was the figure most frequently in the center of the stage in these hallucinations. This is not surprising when it is recalled that many of those developing psychoses were primarily psychopaths of the "inadequate personality" type in whom emotional immaturity, intellectual deficiency, and a marked maternal attachment were outstanding. Other members of the family would also be "seen" and "heard." As often as not these experiences would be related without any emotional display whatever. It was very rare to find the florid hallucinations associated with schizophrenia; nor did one meet with any of the fantastic delusions or bizarre behavior of that disorder, even in those in whom the diagnosis of schizophrenia could not be questioned. In retrospect, one has the distinct impression that, with but few exceptions, the psychotic symptoms in prisoners were not deep rooted or firmly established, especially in the "prison psychoses." Of the psychoses other than "prison psychosis," two-thirds were considered "EPTS." [2] Of these, a few had been committed to civilian state hospitals prior to induction, and some had consulted psychiatrists or clinics because of mental problems.

Group Psychotherapy

Group psychotherapy was instituted a little more than a year after the camp was set up and gradually grew in importance and scope. Sessions lasted 50 minutes and were equally divided between the short lecture on the topic for the day, and the open discussion that followed. The therapist guided the group and did not let individual members monopolize the discussion or change the topic. Prisoners had opportunity to give free play to their emotions without fear of reprisal. The first few hours were devoted to orientation in their new status as prisoners. Then came much of the material ordinarily used in indoctrination of military personnel. Towards the end of the program were presented such topics as physiological reactions of fear, psychosomatic disorders, factors influencing morale, anxiety and how it should be handled, etc. The material was presented in a simple manner to reach the less intelligent. Attendance was compulsory. Prisoners desiring interviews other than those for routine classification were exposed to a variable degree of individual psychotherapy which, naturally, was limited by the available time. The size of the group, depending on the admission rate, seldom exceeded 50. While a few failed to benefit, many showed considerable improvement. Occasionally considerable hostility was evoked from some members of the group and one was inclined to doubt the value of those sessions; but they were worthwhile in the long run for they provided an acceptable outlet for the prisoners' feelings and served as a form of emotional catharsis if nothing else. A decrease in size of the groups, and an increase in the number of therapists, would unquestionably have produced better results. Group therapy was unusually well received by prisoners and personnel alike, once they realized what it had to offer. Although the results could not be

[2] "EPTS"—Existed prior to term of service.

measured, it was felt by all familiar with the rehabilitation program that group therapy helped a great deal, and that as a therapeutic instrument it had not been fully explored.

Intravenous Barbiturate Therapy

Sodium amytal and pentothal were used intravenously in selected functional disorders. In some the response was gratifying; in others it failed dismally. In a few the responses were at first discouraging, but the subjects subsequently improved steadily, and it was felt that the delayed improvement was at least partially due to the treatment. Among the functional disorders were: severe scoliosis, camptocormia (3), analgesias, paresis of a limb, digital tremor, stuttering and amnesia. In some cases benefit from treatment was delayed by the difficulty in establishing rapport with patients who insisted on identifying the psychiatrist with the custodial prison personnel. With some prisoners rapport was impossible; they feared they might reveal information which the psychiatrist was duty bound to incorporate into the prisoner's record however detrimental it might be. Undoubtedly results would have been better if the therapist were not a key figure in the classification procedure and identified with it. Some prisoners responded satisfactorily to this treatment in the nearby hospital (where prison environment was minimized) after having been refractory at the RC. It would have been preferable for one psychiatrist to devote himself to therapy at the post hospital, while the other handled investigative and administrative work of interviewing prisoners for classification purposes. Undesirable identification of the psychotherapist with the prison situation would thus have been minimized, if not avoided.

Psychiatric Orientation of Personnel

Though seldom mentioned as one of the duties of the psychiatrist at a correctional institution, the orientation of the prison personnel to the psychiatric viewpoint is one of the most important. With rare exception, enlisted men and officers who supervised, instructed and guarded the prisoners, had had little special training for their duties at the RC. There were lectures to officers and enlisted men, and prisoners and their case histories served as illustrations. All groups were exposed to formal and informal discussions of psychiatric syndromes frequently found among prisoners. In informal and casual talks, the prisoners' problems were discussed with key men who were thus familiarized with the mental and emotional problems of the prisoners they controlled. A most effective means of educating the personnel to the psychiatric interpretation of prisoners' problems, was the presentation of uncomplicated, well defined and recognized concepts as exemplified by the case histories of the prisoners being processed for classification purposes. The report was not limited to observations usually found in a psychiatric examination. The psychiatrist delved into each prisoner's family and social background; and he correlated this and the personality shaping with the military performance, offenses, and former derelictions and disaffections. The reports thus became illustrative, individual studies in sociology and psychiatry. In due time the personnel, who frequently referred to these reports, absorbed a good deal of the didactic material to which they were exposed. Associated with this didactic "training," were, of course, the lectures, informal talks and demonstrations. Such teaching helped reduce the guess work in rehabilitation of military offenders, and contributed toward elevating the work to a more scientific level.

Results

Complete statistics of the type of adjustment and subsequent military record of those rehabilitated during World War II have not yet been compiled. Latest reports indicated that about 10% were again in sufficient difficulties to warrant reincarceration for completion of sentence. About a year after the RC's activation, restorees left with sentences suspended (formerly the remainder of the sentences had been remitted). This change eliminated much unnecessary administrative work. Another general court-martial was not necessary when the prisoner again committed an offense warranting such a trial; the remainder of his former sentence was put into execution and the restoree was returned to confinement. The restorees who left with

the knowledge that the remainder of their sentence had been suspended (and not remitted) were thus provided with a greater deterrent against future difficulties. They knew reincarceration could be accomplished without delay and that there was no need for another trial and conviction to return them to confinement.

An informal study of the rates of restoration and recidivism of the 9 RCs has shown that the NSC center restored a greater percentage than the others and yet had a rate of recidivism only infinitesimally greater than some of the other RCs. Furthermore, the NSC center restored more soldiers than perhaps half all the other RCs put together! Certain types of psychopaths and mental defectives were not transferred to the USDB quite so readily as appears to have been the case in some of the other RCs, and the excellent results obtained have justified this liberal policy.

The large correspondence from RC restorees to the commanding officer and other members of the staff, was replete with expressions of gratitude and appreciation on the part of those rehabilitated and restored to duty. A number achieved good ratings; some made the supreme sacrifice in various theatres of war; a few were decorated for valor. But most important of all was the less exciting but more significant contribution toward salvaging manpower during the critical war emergency. By this means a few thousand young men were remolded into better soldiers and citizens; and since their families as well as communities will continue to profit thereby, society at large also has benefited. It is therefore not extravagant to state that the new but proven concept of rehabilitation of military offenders should be considered one of the major social contributions of World War II.

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A STUDY OF THE MODIFICATION OF MENTAL ILLNESS BY INTERCURRENT PHYSICAL DISORDERS IN ONE HUNDRED PATIENTS [1]

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The favorable influence of physical disorders occasionally noted in the course of mental illness has long been recognized clinically by many observers.

A study is presented here of 100 such patients who suffered from intercurrent physical illness on the men's service of the New York Hospital-Westchester Division, during the 12½ year period from July 1, 1933, to January 1, 1946.

The purpose of this study has been, in the first place, to determine the relative frequency of mental improvement, lack of change or possible unfavorable mental reaction associated with such physical disorders. We have further been interested in any factors determining the associated mental response with regard to the age of the patient, the duration of mental disorder previous to the illness, the personality prior to mental illness, the type of physical illness and the diagnosis of the mental disorder. An attempt has also been made to determine whether or not any correlations were present between the mental alterations related to intercurrent physical illness and those resulting from shock therapy in the patients in whom both the factors of intercurrent physical disorder and shock therapy existed.

The physical disorders included definite medical or surgical conditions of various origins which might reasonably have been expected to be of serious concern to the patient. This diverse group ranged from major surgical procedures and acute infections, to accidental and suicidal injuries, and included 20 major abdominal operations, 21 fractures, sprains and dislocations, 26 major dental procedures under general anesthesia, 15 acute infections and 18 miscellaneous physical conditions. Nine patients sustained severe injuries in suicidal attempts. These physical conditions were for the most part acute, with a median duration of seven days. Four patients had conditions of very brief duration. Two of these suffered convulsive seizures lasting a few minutes, while a third had an attack of syncope and the fourth had an anginal attack lasting two hours. The longest illness continued over a period of 270 days in a man who suffered a pelvic fracture with recurrent pelvic abscesses.

It was found that in 67 of the 100 patients, physical disorders occurring in the course of the mental illnesses were followed by a definitely improved mental state. This improvement was interpreted in terms of definite evidence of clearer contact with the environment, diminution or disappearance of delusional trends, a more reasonable optimistic outlook, more amenable behavior, and the appearance of emotional ease and comfort. Those classified as much improved showed these changes in marked degree.

The observed improvements continued in respect to time, from one day to one week in 15 instances, and up to one month in 32 instances. Seven other temporary improvements continued for varying periods beyond one month up to one year and one month. There was a total of 28 in which the improvement in the mental state continued to the date of departure of the patient from the hospital. In 11 cases the improvement associated with the appearance of the intercurrent physical illness appeared to be the initial change in an improvement continuing to recovery. In 10 more, the improvement continued until at the time of discharge the mental conditions of the patients were considered as much improved. This gives a total of 21 patients in whom the physical disorder appeared to precipitate an improvement in the mental state which was continued to marked improvement or recovery. Two of these had received electric shock before the intercurrent physical disorder without sustained improvement. One other had had four treatments of elec-

[1] From the New York Hospital-Westchester Division, White Plains, New York.

tric shock when the physical disorder appeared, not associated with the treatments. A fourth had one electric shock treatment subsequent to his physical disorder in attempt to hasten the improvement but he reacted so poorly to the treatment that it was not again attempted.

The mental state of 27 patients remained unchanged following the intercurrent physical disorder, while the remaining 6 patients were worse.

A further statistical review of the findings indicates that age has played a minimal rôle. Ranging from 16 years of age to a maximum of 82, the majority of the patients were in the age group between 20 and 69. Forty-four were under 40 years of age but the percentage of favorable reactions to the observed physical disorders is quite comparable with those over 40.

The duration of the illness prior to the physical disorder is of some significance in that of the 83 persons who had been hospitalized less than one year, approximately 75 percent revealed improvement following the intercurrent physical disorder, while in the remaining 17 who had been in the hospital over one year, only 40 percent showed improvement. It is further noteworthy that this change was of relatively minor degree and more closely limited to the period of actual physical illness.

An attempt was made to relate mental changes associated with physical disorder to personality factors. For this purpose the patients were classified as to whether or not they had been actively aggressive or passive in dealing with their environment. The 41 patients who were considered from their record to have been actively aggressive persons showed no significant statistical difference (whether unchanged, improved, much improved or recovered after their physical illness) from the 38 patients who were considered passive, or from the 21 persons who showed a definite mixture of outward aggression and passivity.

A study of the predominant trends immediately prior to the onset of the intercurrent physical disorders revealed those of depressive character to be most frequent. Of the 51 patients with depressive trends, 27 were improved, 11 much improved, 11 showed no change and 2 were worse following intercurrent physical disorder. Persecutory trends were next in frequency, numbering 18. Of these, 10 were improved, 1 much improved, 5 showed no change and 2 were worse. There were 10 who expressed mainly sexual preoccupations, of whom 2 showed improvement, 4 were much improved, and 4 remained unchanged. Eight revealed no outstanding trend, of whom 2 were improved, 5 showed no change and 1 was worse. There were 5 in whom fear was the primary trend and of these 3 were improved, 1 was much improved and 1 was worse.

In contrasting the two largest groups, it was found that in those with depressive trends, approximately 75 percent showed improvement, as against 61 percent for the persecutory group. It is significant, however, that *marked* improvement, as appeared in 21.6 percent of those with depressive trend was much more impressive than the less than 1 percent of marked improvements in the persecutory group.

With reference to the diagnostic categories, 34 patients had manic-depressive psychoses. Of this group, without regard to type, improvement was noted in 26 instances, with 6 unimproved and 2 worse. It is noteworthy that 14 of the 15 patients of depressed type were improved and but 1 showed no change.

Sixteen patients with involutional psychosis, melancholia, had intercurrent physical disorders. Of this number 7 were improved, 2 were much improved, 7 showed no change, and none was worse. Of the 2 patients with involutional psychosis, paranoid type, 1 showed brief improvement and 1 no change.

Twenty-nine of the group were diagnosed as having dementia præcox. Fourteen of these were improved, 2 much improved, 11 showed no change, and 2 were worse. In this group, however, the patients classified as catatonic showed improvement in 5 of 11 cases, one being much improved, while 4 showed no change and 1 was worse. There were 10 patients with paranoid dementia præcox of whom 5 were improved and 5 showed no change.

Eight patients had psychoneuroses. Of this group, 6 were improved and 2 much improved following the intercurrent physical disorders.

The patients with organic psychoses, including general paresis, Korsakow's psychosis and psychosis with arteriosclerosis showed 3 improved, 2 much improved, 1 with no change and 2 worse.

A patient suffering with psychosis with mental deficiency was improved and in 2 instances of psychosis with psychopathic personality, 1 improved and 1 was unchanged.

Eighteen of the patients who suffered from intercurrent illness received electric shock treatment. In comparing the mental reaction associated with physical illness to the mental change following shock treatment, it was found that 12 patients showed improvement after physical illness, while 15 improved with electric shock treatment. Nine of these patients who improved coincidentally with illness also showed improvement with shock treatment. Two patients improved with illness who did not with shock, while 7 patients improved with electric shock who did not do so with physical illness. Of the latter group it is interesting that 1 patient who showed no change after dental extraction under general anesthesia then received metrazol shock therapy without change but was much improved after electric shock therapy.

Three more patients had insulin shock, making a total of 21 patients who had some form of shock treatment. All 3 had dementia præcox (2 catatonic, 1 hebephrenic). One of these suddenly became mentally clear for twenty-four hours immediately following his recovery from general anesthetic for appendectomy. He then relapsed completely to his regressed, disturbed state and was later much improved after six weeks of insulin shock treatment, finally being discharged from the hospital as much improved after two months.

Another patient who was much improved mentally for two months after the repair of a perforated peptic ulcer, showed some improvement for one month after insulin shock treatment but then relapsed. The third patient showed no response to either physical illness or insulin shock treatment.

In reviewing those patients who had some form of shock treatment as a group, there were 10 who improved both with shock treatment and following their physical illness. Three patients improved with illness who did not do so with electric shock, 7 improved with shock who did not do so with their illness, and 1 did not improve with either.

As to the condition of these patients at the time of discharge, it is noteworthy that of the 10 patients who were improved, both in relation to shock therapy and physical illness, 3 were recovered, 3 were much improved, 2 were improved and 2 unimproved—80 percent showing improvement. Of the 3 who improved with illness but not with shock, 1 was much improved and 2 were unimproved at the time of discharge. Of the 7 patients who were improved with shock but not with physical illness, 1 was recovered, 4 were much improved and 2 were unimproved (71 percent improved). The individual who was not improved with either shock treatment or illness continued unimproved.

In brief, those patients who showed a capacity for improvement in relation to both shock therapy and intercurrent physical disorder did better than those who showed improvement in relation to illness or shock alone, while the individual who showed no response to either remained unimproved.

Of those who remained unimproved at the time of discharge, 1 patient had hebephrenic dementia præcox, 2 had paranoid dementia præcox, 1 catatonic dementia præcox, 1 dementia præcox, depressive type, 1 involutional melancholia, and 1 involutional psychosis, paranoid type. Of the 13 patients who were completely recovered or much improved, 5 had involutional melancholia, 3 had manic-depressive psychoses, depressed type, 3 manic-depressive, mixed type, 1 dementia præcox, depressed type, and 1 catatonic and 1 hebephrenic type.

A comparison of the reactions of patients to intercurrent physical disorders due to self-inflicted injuries as against accidentally sustained injuries proved of some interest. Nine were treated for self-inflicted injuries (4 fractures, 4 severe lacerations, and 1 an inhalation of a dental bridge, necessitating bronchoscopy). Of these 9 patients, 8 were improved, 3 of the improvements being sustained; 1 was worse following the incident. With respect to diagnosis, 2 of these were classified as dementia præcox, 3 involutional melancholia, and 4 manic-depressive psychoses. The personalities of these patients prior to the intercurrent illnesses were re-

garded as aggressive in 2 instances, passive in 5 and mixed in 2.

The reactions, then, in this group occurred mainly in the affective group with passive personalities. This group revealed a definite tendency to improve with self-inflicted aggressive activity. Only 3 of these patients had undergone electric shock, 2 revealing temporary improvement and 1 no change.

Thirteen patients sustained accidental injury with fractures predominating in a total of 9 cases. Other accidental injuries consisted of 1 case of multiple bruises, 2 with sprained ankles and 1 with a ruptured Achilles tendon. Of these 13 patients 10 were improved following the injury, 9 of them temporarily and 1 showing sustained beneficial change. Three showed no change and none was worse. As to diagnoses in this group, 4 were classified as dementia præcox, 7 as types of manic-depressive psychoses and 2 as psychoneuroses. Six revealed aggressive personalities, 4 were passive and 3 were considered of a mixed type, prior to their illness.

Here, too, the ratio of improvement was greater in our total series, with a relation of 10 improved and 3 unimproved, as compared with 67 improved and 33 unimproved in the whole series of 100 patients.

Only 3 of this group received electric shock with 2 showing improvement and 1 no change.

Two case reports follow illustrating mental recovery apparently precipitated by intercurrent physical disorders.

1. A 26-year-old man was admitted to the hospital on August 21, 1936. He was of English ancestry with no known heritage of nervous or mental disorders. Small and stocky as a child, he had pneumonia at nine months which was followed by recurrent attacks of bronchitis, with a second and third attack of pneumonia at six and nine years of age. He is said to have made the most of his opportunities afforded by these illnesses to obtain attention and special privileges from his family. A quiet, phlegmatic child, he nevertheless was a good mixer and preferred the company of others to being alone. During adolescence his physical health improved. He then became more active in sports but was said to have taken things easily and to have waited until urged before engaging in outside activities. After graduation from high school he took a course in pharmacy with the expectation of entering his father's pharmacy business. This he did but in 1931 his mother died and a year later he was thrown on his own resources for the first time in his life by the death of his father. He then took an apartment with his sister but made so many demands upon her that she preferred to live elsewhere.

Upon taking over the management of his father's drug store, the business did not go well due to the fact that he was impractical and unimaginative.

In June, 1936, it was observed that he was becoming more than usually phlegmatic and sleepy. He exhibited a gradually increasing depression of mood and retardation of activity, followed by undue self criticism and later overconcern as to his physical health. In July he entered a general hospital where numerous tests and examinations were reported as negative but his mental symptoms became more marked. Early in August he was sent to a neurological service where he continued to be retarded, depressed and self-depreciatory, finally resulting in his admission to this hospital.

Here his physical findings were not remarkable, but he revealed a depressed, hopeless attitude, admitted suicidal thoughts, was retarded and self-critical and indecisive.

On December 31, 1936, he had a sudden elevation of temperature to 103 with a complaint of sore throat. Given local treatment the temperature subsided and remained normal for four days, when he again complained of severe sore throat and was again found to have a fever. Hemolytic streptococci were found to be the predominating organism present in the throat. Leucocytes rose to 20,000 with 93 percent neutrophiles in the differential count. In the succeeding two weeks the patient's temperature varied between 99 and 103 and he lost some weight.

Throughout his physical illness he presented few complaints, was very cooperative to his treatment and with the attention given seemed no longer depressed. On January 19 he was permitted to sit up in a chair and a notation indicates that he was pleasant and amiable. On January 23 and 24 he expressed some concern over his physical illness but by January 27 it was observed that he was jovial though still weak and tired. He gradually became more active, cheerful and more sociable. By February 23, 1937, he was given ground privileges and on March 5 began a series of short visits to his sister's home. Coincidentally with the improvement from the intercurrent physical illness he underwent a marked and sustained change in mood becoming cheerful and optimistic. On April 8 he had a tonsillectomy under local anesthesia without adverse reaction and by mid-April he left the hospital on extended visit to return to his work managing the drug store apparently recovered from the mental illness. Three months later it was reported by his sister that he was entirely recovered and was working regularly.

This case is of interest in that it reveals a passive individual who under stress of removal of his parental security, the sudden necessity for assumption of some aggressiveness in the management of a business left to him by the death of his father, gradu-

ally slipped into a retarded depression. The intercurrent physical disorder appears to have provided again the attention he had missed, with a decreasing necessity for the protection of the illness. There was a gradual misuse of aggressive interests stimulated by continual concern over the reality of his illness. The improvement associated with the intercurrent physical illness continued on to recovery and appears to have been the precipitating factor.

2. A 44-year-old married professional man was admitted to the hospital on April 17, 1939, having been referred because of depression, fears, indecision, self-depreciation, and a wish to die. He had developed a feeling of panic making him unable to go outside alone. He had given up his work because he felt ashamed to see people and because he could not concentrate.

His condition which had been of several weeks' duration was apparently precipitated by a feeling of insecurity and inadequacy at the prospect of changing his place of work and his well established mode of life.

The family history revealed that the father and a paternal aunt had died of cardio-vascular disease. The mother was a nervous woman given to worry, while a brother was subject to mild mood swings.

The patient had been a healthy child. He had done only fairly well at school although he was very studious. Always an outwardly passive individual he had few friends, was self conscious with girls, had very restricted interests and spent little time in recreation. His habits were very temperate. Following his marriage at the age of 26 he had a mild depression following which marital adjustment was good.

At the time of admission to the hospital examination showed a short, pyknic male in good physical health. Mentally the patient was depressed, retarded, hopeless and self-depreciatory. He said that he was a "faker and a coward." He was considered to have manic-depressive psychosis, depressed type, and to be very suicidal.

His psychotic depression continued without improvement for eight months after admission when he inhaled a dental bridge which lodged in his bronchus. He stated that he had done this with suicidal intent. He soon developed a temperature of 103.4 and expectorated thick, purulent material. The hooked denture was removed with great difficulty with the use of the bronchoscope.

The patient was worried about his condition and the desire to live now interested him more than his previous depressive, self-depreciatory trends. He rapidly recovered from his depression and within two months was entirely well and back in the full swing of his work.

The history of this interesting patient demonstrates the not uncommon mental improvement following suicidal injuries and their complications. It has been noted that of the 9 such cases studied here, 8 showed improvement; of these, 3 went directly on to full recovery from their mental condition.

SUMMARY

This study demonstrates statistically in an unselected group of 100 male patients the frequent favorable influence of intercurrent physical disorders upon the course of mental illness. Not infrequently, as seen in 11 percent of the patients, the physical illness appears to precipitate recovery. The analysis of the 100 cases has revealed that the age of the patient is of little or no significance. The duration of the mental illness prior to the appearance of the physical disorder, however, does appear to have significance; of those hospitalized less than one year, 75 percent revealed improvement, while in those hospitalized for mental illness over one year, only 40 percent showed improvement following intercurrent physical disorder. Personality factors, whether of aggressive or passive type as judged by outward behavior appeared from this study to have little or no influence on the reaction to physical disorder. In contrasting the two most frequently observed trends it was observed that improvement was more consistently associated with a depressive trend than with a persecutory trend.

Accidental or self-inflicted injuries proved to be a stimulus for improvement in a high proportion of patients. There were 9 self-inflicted and 13 accidental injuries making a total of 22 patients injured, with improvement occurring in 18 instances or in over 85 percent of these patients. The patients with self-inflicted injuries did somewhat better as a group than those with accidental injuries.

Generally speaking, these patients who showed mental improvement in relation to physical disorder also did so with shock treatment although a substantial number improved with shock treatment who did not do so with intercurrent physical illness. In those who showed a capacity for improvement in response to both shock therapy and physical disorder, the prospect of sustained improvement or recovery was better than in

those who were improved in relation to physical illness alone or shock therapy alone.

A total of 67 of the 100 cases showed improvement following intercurrent physical disorder, with the improvement proceeding directly to recovery in 11 patients. The most striking and consistent change appeared in the 34 manic-depressive cases, with improvement in 26 instances. The manic-depressive depressed group, however, did the best with 14 out of 15 showing improvement. The patients who already had organic brain disease, as might be expected, did least well in relation to intercurrent physical illness with 2 out of 8 made mentally worse.

This study of a group of 100 patients definitely suggests that one factor determining the mental improvement often associated with intercurrent physical disorder is a stimulation of the patient's interest toward the realistic goal of recovery through a threat to his physical existence. It is as if the aggression and interest which is withdrawn from external reality and turned inward into the relatively useless fabric of mental illness can often be organized and more realistically directed outward by the patient confronted by the fear of death which is phylogenetically perhaps his most fundamental concern. For this reason it might be expected that even the most chronically regressed mental patients may show a definite temporary mental improvement associated with physical illness while more acutely ill patients may be stimulated into recovery. It might also be anticipated, as our results show, that the interest of the manic-depressive, depressive, patients whose aggression appears so relatively well organized even though turned inward, could most easily be turned back into external reality with a resulting high rate of improvement or recovery.

A comparison of the mental responses of the patients who also had shock treatment suggests that the improvement found in association with intercurrent physical illness, as well as with the manipulations of shock treatment, may have the factor in common of providing a threat to the patient which stimulates the organization of his capacities in a striving toward the biologically fundamental direction of recovery.

NAIL BITING

Incidence, Allied Personality Traits and Military Significance

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This paper was written because nail biting usually has been considered a nervous personality trait; many of our armed forces have been evacuated from combat areas because of nervous disorders; and it was thought that a study of nail biters who had experienced foreign and combat duty might help in determining the degree of military significance of nail biting, and hence might be an aid in selecting those whose personalities were useful for military combat purposes.

A study was made of the personalities of nail biters, the prevalence of nail biting, and the military and combat usefulness of nail biters among naval and marine male enlisted personnel who were evacuated to a hospital in this country from the Pacific battle area because of nervous conditions. These did not include psychoses or psychopathic personalities. From 223 routine admissions, 100 cases of nail biting were collected, *i.e.*, 45% of these were nail biters. More than half of them bit their nails periodically or continuously since their earliest recollections. The remainder began the habit in association with combat, or gave it up before their present illness. Of the 100 patients, 73 were marines and 27 were sailors. When this study was made, two-thirds of the patients at this hospital were marines.

The family history of these patients was studied, and it was found that 25% of them had parents or older siblings who were nail biters.

Of the entire group of nail biters, 73% had an unduly irritable disposition. They described their tempers as "quick, violent, high, hot." They said they "get mad real quick," "get mad all at once," "fly off the handle easy," and "flare up and blow up." Among those with unusually irritable natures, only 30% had any civil or naval legal offenses; and in the entire group a frequent complaint was that of fear lest they not have "clean record." These figures may be influenced by the absence of psychopaths and psychotics from this study.

The most frequent circumstances under which nail biting occurred were reviewed. In one-half the patients, it happened when they were in tense, emotional situations, as "when I am mad and can't do anything about it"; when observing movies of murder and war; and in combat, after it, or while thinking of it. A second frequent occasion for nail biting was during periods of inactivity enforced by others or themselves. A desired result was to aid in concentrating attention, as "to clear my mind when about to fight," and "to make decisions." A casual explanation of nail biting was described as "just catch myself doing it, not thinking." Here there was usually the interpolation, "ashamed of doing it," or "I know better." These addenda were given voluntarily by those whose nail biting started in childhood. Other explanations were, "don't know," and "just a habit, like smoking."

TABLE I

	Average months service	Average months tropical duty	Average days combat	% returning to duty
Part A—entire group of nail biters.....	27	16	72	45
Part B—bad tempers with many fist fights.	32	20	81	55
Part C—bad tempers with few or no fist fights	30	6	58	14
Part D—tremble and weep when angry..	22	12	40	35

The military usefulness of nail biters was determined by estimating the time they were in the service, the amount of tropical and combat duty they experienced, and their will and ability to return to duty after adequate treatment.

According to Table I, part A, it is obvious that the entire group of nail biters were not without military usefulness.

A study of individual case histories revealed that some nail biters had undergone prolonged, tropical, combat duty, and after treatment were able to return to duty; others were found less useful for military combat purposes.

An illustration of the latter group is seen in:

CASE 1.—This was a 23-year-old marine. His nail biting was of many years duration. He characterized it as, "I just chew on my little pinkeys" (the tips of his little fingers). He said he bit his nails, "just to have something to do; it's a bad habit; it broadcasts you are nervous." Other early neurotic traits included fear of the dark, fear of crowds, sleep talking, and sleep walking all of which persisted until 4 years after puberty. His usual reaction to his very quick temper was to weep and tremble. He never had a fist fight. His strict, irritable father beat him unmercifully when he erred. This was a frequent occurrence.

During his 14 days of military combat duty, "my hands paralyzed. I trembled and cried. I didn't even shoot at a Jap. I couldn't do it. I was just in a fox-hole. They thought I was yellow."

A nail biter useful for combat duty is seen in:

CASE 2.—This 21-year-old marine had bitten his nails since childhood. His right index finger nail was bitten most frequently. "I have to bite him all the time." This occurred most frequently while he observed murder mystery movies, and when "sitting down doing nothing." He had few early neurotic traits. He characterized his temper as "quick and soon over it." He had more than the usual number of fist fights; and when angry, "I often hit 'em." He had no complaints about his parents whom he considered happily married.

In his 90 days of military combat experiences, "I didn't mind killing 'em. One Jap made me mad keeping on sniping. So I cut his throat and stuck a branch through him. He looked funny. I wondered why I did it." He was evacuated to this country when he received a severe blast concussion.

An effort was made to determine the characteristics of nail biters who were useful for military combat duty. The numerical frequency of early neurotic traits was reviewed and it was found that those with few of these traits did better than those with many of them.

Since a violent temper was a trait common to 73% of the nail biters, it was considered pertinent to investigate the reactions of these patients to their rage. It was found that 27 of them had numerous fist fights since childhood; and 46 gave a history of very few or no fist fights. Table I, parts B and C, shows that those with numerous fist fights were more useful for military and combat purposes than those who had few or no fist fights.

A study of the child-parent relationship among those who were not apt at fist fighting revealed that the patients complained of their parents in the following order of frequency: parents divorced or dead; drunken father who beat the family; parents who quarrelled or fought; quick tempered parents who beat their children unmercifully; parents who were "too good" and seldom corrected the child; and parents who worked, so that "there wasn't much home life." These complaints about parents were absent or of much less frequency among those who reacted to their anger by fist fighting.

The group who had no fist fights explained their peculiarity in the following ways: "I'm afraid for myself for what I might do," "afraid I might hurt some one," "if I get mad I would really cut 'em up," "once when mad I tried to kill my best friend," and "I get all excited and fouled up and shake. That's what makes me a poor fighter."

Among those with violent tempers, the usual reaction of weeping and trembling when angry was present in 28 patients, most of whom were in the group who had few or no fist fights. As may be seen in table I, part D, the military combat usefulness of those who trembled and wept, compared unfavorably with that of the entire group of nail biters.

The combat experiences of the 100 nail biters were studied. It was found that 19 had no combat; 50 had a nonchalant reaction to combat killing; 6 boasted of enjoying it; and 25 were emotionally disturbed by it.

The reasons for emotional disturbance by combat killing were described as: "The Japs are like you and I. They have families," "I ain't stepping out of my way to be a Silver-Star guy," "the sight of blood makes me puke," "I don't like to see anything killed. In the Bible it says you shouldn't be a killer."

The reactions of those who enjoyed combat killing or had a nonchalant reaction toward it were reviewed: "It relieved my tension to kill Japs," "I got a kick out of watching 'em fall," "It was either me or him," "I got a grudge against them, account it was them that made me go over there," "I

enjoyed killing 'em. It was just like killing a rat."

Among the 46 patients with strong tempers who had few or no fist fights, 64% were unduly emotionally disturbed by combat experiences, 23% reacted nonchalantly, and 13% experienced no combat. Also among the 28 patients with trembling and weeping reactions to their violent tempers 57% were unduly upset emotionally by combat killing; 21% reacted nonchalantly to it; and 22% had no combat.

A comparative study was made on naval male enlisted personnel who had experienced combat in the Pacific or Atlantic battle areas, who had no sick list admissions because of nervousness and who were separated from naval service by the point system. The study was made soon after the end of World War II, when separatees had experienced prolonged foreign combat duty. From 1571 such routine separatees, 100 cases of nail biting were collected, *i.e.*, 6% of them were nail biters. Of these, more than half bit their nails as long as they could recall. The remainder started it in association with combat, or gave up the practice before joining the Navy. Of the 100 cases, 75% had a temper of average or less than average degree; 90% had experienced an average or more than average number of fist fights; and 93% had never trembled and wept when angry.

SUMMARY

Patients evacuated to a naval hospital in this country from the Pacific battle area because of nervous conditions, excluding psychoses and psychopathic personalities, were examined in regard to nail biting. From routine admissions, 100 nail biters were collected. The frequency of the condition was determined. By studying the personalities, service and combat reactions of these patients, an effort was made to throw some light on the personalities of nail biters and the military usefulness of those who bite their nails. A comparative study was made on 100 nail biters who had experienced combat, who had no sick list admissions because of nervousness, and who were separated from naval service by the point system.

CONCLUSIONS

1. In military combat, nail biters generally are less useful than non-nail biters.

2. However some nail biters undergo combat without hospitalization for nervousness; and many nail biters experience prolonged combat prior to hospitalization for nervous conditions.

3. Nail biters least useful for military combat purposes are characterized by:

(1) Unhappy child-parent relationship.

(2) Multiple early neurotic traits.

(3) Very irritable, explosive temper.

(4) Usual reaction of weeping and trembling when angry.

(5) Infrequency or absence of fist fights in early life.

(6) Emotionally disturbed response to combat killing.

A PSYCHOSOMATIC APPROACH TO THE PROBLEM OF STUTTERING IN PSYCHOTICS

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In the evolution of man, speech is the most highly integrated function. It has served as one of the most directed means of expression toward establishing interpersonal relationships.

Disturbances along the pathway and levels of speech may be of three varieties, namely: (1) disturbances of phonation and articulation; (2) disturbances in symbolic expression, and (3) disturbances in rhythm. A disturbance of the latter type is commonly known as stuttering or dysphemia.

In the realm of speech disorders, stuttering plays a most prevalent and important rôle. Attempts to study and classify this syndrome have been made by the psychiatrist, the neurologist, the laryngologist and the sociologist. In spite of the wide number of theories that have been offered with respect to the nature, etiology and treatment of this condition it still remains a topic of considerable discussion and controversy.

Method of Study

The present investigation was conducted among psychotic patients at the Central Islip State Hospital. Only those patients who exhibited definite symptoms of stuttering were selected for study; patients who were mute, disturbed and resistive, and those whose stuttering syndrome was masked by some allied speech disorder were excluded. In the study of the case material special consideration was given to possible relationship of neuropsychiatric and psychosomatic disorders with the problem of stuttering.

Observations

The observations derived from this study were divided into two categories. The first or neuropsychiatric study is indicated in Table I, and consists of the age, sex, psychiatric diagnosis, personality make-up, family history (including inherited and constitutional factors), emotional behavior at the time of examination, and a superficial neurological and physical examination. The second part consists mainly of personal interviews with the patient in which data relative to the underlying psychopathology of the stuttering symptom were formulated.

Part I. Neuropsychiatric Study

The material selected for study was relatively small in comparison to the total number of resident patients, namely 20 in about 7,000. It included 16 males and 4 females, 17 to 55 years old, the average age being 34 years. It was interesting to discover that only one in every 350 psychotic patients, or .28 percent, stuttered. This percentage is small in contrast to the incidence of stuttering among the general population in this country, which is about one percent, amounting to about a million and a quarter. However, allowances must be made for some degree of error in a study of this kind.

The patients were diagnosed according to the classification adopted by The American Psychiatric Association. There were 11 cases of dementia præcox (6 paranoid, 4 hebephrenic, 1 catatonic), 3 cases of psychosis due to convulsive disorders, 2 manic-depressive-manic psychosis, 1 case of psychosis due to mental deficiency, 1 with alcoholic psychosis-pathological intoxication, 1 psychoneurosis-psychasthenia, and 1 case of psychosis with epidemic encephalitis.

With respect to their personality traits patients were classified as introverts or extroverts. This simple classification does not fully describe all personality characteristics, but serves as a measure of the predominant attitudes of the individual in meeting life situations. Table II shows that 15 cases were of the introvert type and 5 cases extrovert.

The family history presented some outstanding neuropsychiatric or psychosomatic disorder in every case except in two where such information was not available. In the majority of the cases there was a definite history or indication of some immediate

TABLE I

NEUROPSYCHIATRIC STUDY

Age	Sex	Psychiatric diagnosis	Family history including inherited and constitutional factors	Emotional behavior	Physical findings
33	M	Dementia præcox, paranoid type.	Parents are first cousins, temperamental, demanding, rigid.	Impulsive, quarrelsome, tense.	Asthenic habitus, congenital organic brain pathology, generalized asymmetry between sides of body.
41	M	Dementia præcox, paranoid type.	Mother neurotic, killed under a truck when patient was 12 years of age. Father alcoholic.	Inferior, fearful, tense, dependent, submissive.	Asthenic habitus, history of diabetes mellitus, anxiety features.
55	M	Dementia præcox, paranoid type.	Father psychotic—committed suicide.	Seclusive, surly, antagonistic.	Clinical evidence of pulmonary tuberculosis.
39	F	Dementia præcox, paranoid type.	One sister psychotic. Another sister chronic alcoholic. Mother neurotic.	Suspicious, moody, irritable, egocentric.	Dysplastic habitus, enlargement left side of heart, marked hirsutisim and masculine features
39	F	Dementia præcox, paranoid type.	Questionable history of insanity in family.	Fearful, inadequate, delusional.	Asthenic habitus, extrasystoles positive Babinski.
46	M	Dementia præcox, paranoid type.	Brother psychotic. Mother high-strung, temperamental.	Tense, anxious, fearful, delusional.	Asthenic habitus, chronic anxiety symptoms.
23	M	Dementia præcox, hebephrenic type.	Family history not available.	Disturbing, tense, assaulting tendencies.	Asthenic habitus, chronic anxiety symptoms.
18	M	Dementia præcox, hebephrenic type.	Mother neurotic. Maternal aunt psychotic. Both parents worrisome.	Aggressive tendencies, disturbed, quarrelsome, tense.	Asthenic habitus, anxiety symptoms.
36	M	Dementia præcox, hebephrenic type.	Mother psychoneurotic, overproductive, temperamental.	Inferior, seclusive, tense, dependent.	Asthenic habitus, negative physical findings.
32	M	Dementia præcox, hebephrenic type.	Mother neurotic. Father alcoholic, both parents nervous, worrisome, unstable.	Silly, manneristic, childish, inadequate, superficial.	Asthenic habitus, chronic eczema, anxiety symptoms.
24	M	Dementia præcox, catatonic type.	Family history not obtainable.	Withdrawn, shy, seclusive, manneristic.	Asthenic habitus, anxiety symptoms.
36	M	Psychosis due to convulsive disorders, excitement.	Mother neurotic, diabetic. Father died when patient was 6—cause not known.	Suspicious, irritable, defensive, impulsive.	Asthenic habitus, history of early spinal meningitis, irregularities of pupils, ataxic gait.
20	M	Psychosis due to convulsive disorders, epileptic deterioration.	Both parents were drug addicts Mother had epilepsy and attempted suicide several times.	Psychopathic tendencies, irritable, disturbing, aggressive.	Systemic syphilis, bilateral corneal opacities, positive Babinski.
35	F	Psychosis due to convulsive disorders, clouded states.	Mother psychoneurotic. Paternal cousin feebleminded.	Confused, seclusive, deteriorated.	Dysplastic habitus, history of spinal meningitis, hirsutism and masculine features.
50	M	Manic-depressive, manic psychosis.	Both parents unstable, not understanding, demanding, rigid.	Excited, tense, increased psychomotor activity, flight of ideas.	Asthenic habitus, negative physical findings.
50	F	Manic-depressive, manic type.	Mother psychotic. Maternal aunt committed suicide.	Tense, excited aggressive, anxious.	Dysplastic habitus, anxiety features, cardiac pathology, vasomotor disturbances.
29	M	Psychosis with mental deficiency.	Mother neurotic. Father died of diabetes mellitus.	Impulsive, aggressive, fearful, tense.	Asthenic habitus, exophthalmos, sinus arhythmia, gastro intestinal disturbances.
31	M	Psychoneurosis, psychasthenia.	Parents unstable, sensitive, insecure. Mother overprotective.	Dependent, submissive, compliant, non-assertive.	Asthenic habitus, physically negative.
28	M	Psychosis due to alcohol, pathological intoxication.	Mother highly neurotic. Father domineering, stern and rigid.	Fearful, tense, dependent, anxious.	Asthenic habitus, moderate sclerosis of retinal vessels, liver pathology, anxiety features.
17	M	Psychosis with epidemic encephalitis	Mother is mentally defective. Two maternal aunts and maternal cousins psychotic.	Sexual degenerate, too impulsive, aggressive, tense, disturbed.	Frohlich constitution, mammary glands over-developed, female. distribution of pubic hair, slight facial masking with bilateral ptosis of eyelids.

member of the family having psychotic manifestations, more often on the maternal side. In every case, one or both parents were described as nervous, temperamental, worrisome, demanding, rigid, not understanding; and frequently an attitude of overprotection or lack of sympathy appeared to be present. The family environment and parent-relationship in most instances were characterized by a lack of warmth and affection, and frequent emotional stirring.

There was found to be definite emotional instability in each individual case, and in the majority the underlying tension and anxiety features were marked.

TABLE II

Diagnosis	Introverts	Extroverts	Total
Dementia præcox:			
Paranoid	5	1	6
Hebephrenic	3	1	4
Catatonic	1	0	1
Psychosis due to convulsive disorders	2	1	3
Manic-depressive psychoses	0	2	2
Psychoneurosis:			
Psychasthenia	1	0	1
Alcoholic psychoses:			
Pathological intoxication	1	0	1
Psychosis due to mental deficiency	1	0	1
Psychosis with epidemic encephalitis	1	0	1
	15	5	20

Patients of the schizoid variety were seclusive, shy, fearful, submissive, non-assertive, withdrawn, egocentric and highly dependent. The more deteriorated types were surly, untidy, manneristic, confused, silly, inadequate, childish, superficial and presented some degree of sensorial cloudiness. The few cyclothymic types present were disturbed, assaulting, talkative, antagonistic, flighty, impulsive and presented frequent mood changes.

The physical examination revealed no outstanding pathological features. The body builds were predominantly of an asthenic variety in the male sex, and of a dysplastic nature in the female. One male presented a fairly typical Fröhlich constitution with marked obesity, underdeveloped genital organs, overdeveloped mammary glands, and female distribution of pubic hair. In two of the female group hirsutism and masculine features were marked. The prevalent physical diseases observed were cardiac irregularities, gastro-intestinal disturbances, spinal meningitis, epilepsy, systemic syphilis, diabetes mellitus, and one case of active pulmonary tuberculosis.

The neurological examination revealed no evidence of peripheral neuro-muscular involvement nor were there any pathological disturbances of the speech organs. Deep reflexes were slightly exaggerated, but equal on both sides and of no pathological significance. A true Babinski sign was found in two cases, one of which was an individual with systemic syphilis. In nearly every case there were symptoms of acute or chronic anxiety, characterized by excessive sweating of the hands and feet, fine tremors of the outstretched hands, occasional tics and twitches of the face and upper extremities, and the so called parakinesias or purposeless, jerky and irregular movements of the body, usually associated with the tension factors of stuttering. During the marked phases of stuttering, signs of vasomotor instability associated with blushing, cardiac palpitation, dilated pupils, and variations in blood pressure were frequent.

The lack of consistency and uniformity of physical findings may lead to the conclusion that physical factors play no part in the etiology of stuttering.

Part II. Psychopathology of the Stuttering Symptom

1. *Age of Onset and Sex-Distribution.*—According to Glauber, about 90 percent begin under the age of 10 and the majority of these start in the first five years. He states, "These are the years when the first major social adjustments begin. The early incidence of this syndrome and its continuation without a break through childhood, adolescence and adulthood, despite many spontaneous recoveries and improvements, is of the utmost significance. It is in marked contrast to almost all the other clinical forms of psychoneuroses which have a later onset. In stuttering, due to the early onset and continuation of the syndrome, there results an arrest of

emotional development and a disturbance in interpersonal relationships that is most pervasive and that marks the condition as a unique and profound character neurosis." Orton divides the onset of stuttering into two periods, one beginning at the period of speech learning (2-3), and the other at the time of writing (6-8).

The question of sex distribution in stutterers remains as yet in a controversial state. The males are from four to eight times as frequently affected as females. Greene offers the most conclusive explanation; he states, "that early environmental stress is never as hard on girls as on boys. The element of social competition enters into the life of even the youngest boys much more decisively than into that of girls. For the little girls play with each other in groups, the same as they did when they played with their mothers or sisters at home, while the boy is injected immediately into an incomparably more strenuous atmosphere of group games in which the prowess of much older boys sets the standards. In other words, the social impact is stronger in the male sex and stuttering therefore must be common. Also an additional hardship for the male is the fact that mothers usually center their affection on him, injudiciously shielding him and thereby weakening him, with the result that he is unable to cope with the regulation environmental onslaughts."

With regard to the development of the speech mechanism, Abt and his co-workers have reported that at 18 months only 14 percent of the responses of boys are comprehensible whereas in girls 38 percent are comprehensible. According to Tilney and Casamajor, there is an earlier myelinization of nerve fibres in girls than in boys, coincident with development of speech function. Allen in a study of 300,000 cases concluded that females presented in many ways a greater physiological and neurological stability.

In our study we found, through direct questioning of the patient or by information received from some immediate member of the family, that 12, or 60 percent, were able to recall the age of onset. The remaining 8, or 40 percent, were unable to recall the age of onset of stuttering. Ages recalled ranged from 5 to 8 years in all but two cases; in these the beginning of stuttering was noticed after the age of 10. The patients' recollection in these last two cases may not have been entirely trustworthy.

2. *Precipitating Factors.*—The onset of stuttering in childhood may be precipitated by any experience which in a stuttering-type individual generates anxiety and fear. Such traumatic experiences are fright, accident, illness, operation, forcible conversion from left to right-handedness, or a tense and worrisome home environment. The element of fright as a situational traumatic experience plays the most prevalent rôle. The most common experiences of this type are: being frightened by the dark or lightning; receiving a severe punishing at the hands of a domineering and stern parent; being frightened by a dog or some other animal; being chased or mobbed by a gang of "tough boys"; being yelled at by an angered person; being thrown into water for the first time; and being caught in the act of masturbation by a parent.

Of the 20 patients examined 7, or 35 percent, could attribute the symptom of stuttering to some specific happening. Eight, or 40 percent, felt that the primary cause of their stuttering was possibly a tense and worrisome environment, and 5, or 25 percent, were unable to cite a specific happening.

The following examples are illustrative of those cases with known precipitating factors:

1. L. H., an only child, was closely attached to his mother who overprotected him and held him very close to her "apron strings." During his early childhood, she directed his mode of living and shook his feelings of security. She constantly spoke to him of the dangers and cruelties of the outside world, and forbade him to associate with the rest of the boys in the neighborhood. He presented a history of nail-biting, enuresis at the age of 9, and frequent nightmares of a terrifying nature. At the age of 6, after much persuasion, he went along with a group of his playmates to a nearby vacant building which his mother had constantly warned him not to visit, because "it was supposed to be haunted." As he entered the building, one of the older boys decided to play a prank on him by pushing him through a doorway and running away with the rest of the group. This incident of being isolated in a forbidden spot was of a frightening nature, and subsequently he stuttered.

2. N. H., a 35-year-old male, was the product of a domineering, stern and rigid mother and an alcoholic father who had little time to spend with his children. The family environment was one of constant friction and quarrels. At an early age he was subject to nail-biting, temper tantrums and

nightmares of "being beaten up." His eldest brother was his constant and only companion and the one in whom he confided and whom he respected. At the age of 8 while chasing his brother through the streets while playing he saw his brother being struck by a truck and instantly killed. Involuntarily following this tremendous psychic shock he began to stutter.

3. R. B., a 50-year-old female, was reared most of her life by a domineering and intolerant father who punished her frequently. When the patient was 5, her mother suddenly became psychotic and was confined to a mental institution. During her early childhood the patient was subject to horrifying nightmares of being chased by weird animals which would awaken her and cause her to have nocturnal crying spells. At the age of 7 she was frightened by a large dog, and subsequently began to stutter.

4. S. R., a 20-year-old male, was the only child of parents who were drug addicts. The father was a severe stutterer, and frequently when he became angered, would beat his wife in the presence of his son. The mother later took to alcohol and when the boy was 6 years of age, she committed suicide. When the boy first entered school, he was shy, seclusive and insecure. Whenever he was about to be called upon to speak in class, he would become afraid and break out into a complete sweat. His lips would tremble and he couldn't speak for some time. He had been a chronic nail-biter up to the time of examination, and there is a history of being a sleep walker in earlier years. At the age of 7 he was forced, upon the insistence of his father to undergo a tonsillectomy. The severe fright and shock sustained during this incident was followed by stuttering.

5. D. S., an 18-year-old male, went swimming at the age of 8 against his mother's wishes. While diving, he slipped and struck his skull against a plank, receiving a slight injury to his forehead. He was not unconscious, but temporarily shocked and frightened. This frightening experience, plus the anticipation of being punished by his mother, was alleged to have caused the stuttering.

6. A. D., a 33-year-old male, was left-handed since birth. Both parents were described as being vigorous, intolerant and demanding. There is a history of a brother and a maternal cousin who stuttered. There was a constant fear of not meeting his parents' demands and of receiving some form of punishment in consequence. As a child he wet the bed and had frequent nightmares of "falling off tall buildings or of floating off into space, without being able to come back to earth." At the age of 5, he was forcibly threatened to be converted from left to right-handedness, and subsequently stuttered.

7. T. R., an 18-year-old male, began to stutter at the age of 9, following an attack of encephalitis lethargica. His family history denoted a highly neurotic, temperamental, highstrung and worrisome mother. The father died when the boy was 6 years old, cause unknown. A maternal aunt stuttered and later became psychotic. During the entire course of the illness, the mother remained constantly at his bedside, sobbed, cried and prayed continually for his recovery. He has been a chronic nail-biter and wet the bed until the age of 12.

The following case review is presented in some detail, to illustrate the salient features of a tense and worrisome home environment acting as a precipitating factor in stuttering and finally leading to a psychotic level.

8. R. S., a 41-year-old male, white, was admitted to Central Islip State Hospital on a regular commitment on August 12, 1943. He gave a history of being extremely aggressive and hostile toward his mother. He struck her at frequent intervals, threw furniture about the house in her presence, and assumed a threatening attitude. He was found to be emotionally tense, anxious, antagonistic and quarrelsome. He presented definite delusional trends which were mainly about his mother. There were no hallucinations admitted, nor was there any clouding of the sensorium. The physical examination revealed a tall individual of asthenic habitus with marked symptoms of acute anxiety. The stuttering features throughout the examination were marked. His diagnosis was dementia præcox, paranoid type.

The family history revealed no significant factors from a hereditary standpoint. He was the only child of a "middle class" Jewish American family. The mother was described as domineering, stubborn, rigid and stern. The father was gentle, understanding, submissive and compliant, but had little time to spend with the boy. The father was also a severe stutterer and had two brothers with a similar speech impairment. The family environment was one of continued friction and quarrels, which centered mostly about economic stress. During R. S.'s entire childhood he was closely attached to his father on whom he greatly depended. When left alone with his mother, there was the constant fear of not meeting with her demands and of receiving punishment. During his early childhood he was seclusive and shy and was never at ease with the other boys in the neighborhood who "bullied him." In spite of her domineering attitude, the mother attempted to win over her son on every occasion by hugging and kissing him. Up to the age of 10 he slept in the same room with the mother in a bed close to her. During this period he began to wet the bed and had frequent nightmares characterized by a feeling of helplessness in the face of impending peril. He has bitten his nails all his life. He was rather retarded in learning to walk and talk and was described by the mother as being a rather "slow moving and nervous individual." As a child he progressed very slowly in school because of his "day dreaming" and inability to concentrate. He sat mostly in the rear of his classes to avoid being called upon to recite, when his arms and legs

would tremble and his heart would pound rapidly. When R. S. was 12 his father deserted the family after a heated argument. As the father began to leave the house, the boy clung desperately to him, crying hysterically and pleading with him to remain at home. During the struggle the mother tore the boy away from his father, pushing her son to the floor. This traumatic experience preceded the onset of stuttering.

An emotional stirring was thus set up during childhood, which was difficult for the boy to understand or accept. His hostility and dislike for his mother on one side, and the need for affection and warmth from his father on the other, brought about emotional conflict and anxiety. The child is thus rendered insecure and helpless and is compelled to search for new ways to cope with life in a safer manner. In order to combat this ever-growing state of anxiety, neurotic trends are formed with their secondary defense mechanisms. Because of the constant state of feeling ridiculed, belittled and threatened by corporal punishment or deprivation, he assumes a passive attitude. His community is experienced as one of intolerance and authority. Interpersonal relationships become distorted in later years, and the individual usually becomes submissive, yet self-assertive and aggressive. Finally, this unconscious hostility and rage which is being constantly repressed is brought to a conscious level; the power of concentration and the accepted bases of reasoning and judgment are impaired, finally leading to a psychotic state which was manifested by threatening to assault the object of hatred.

Table III shows the age of onset and the various alleged causes of stuttering.

3. *Family History.*—In a recent study of 100 cases taken from the National Hospital for Speech Disorders in New York City, Meyer found that where an inquiry into the family history was undertaken, 61 patients asserted that there were other stutterers in the family; whereas in a control group of 246 non-stuttering students from the New York University Medical College was studied, only 16, or 6.5 percent, stated that they had relatives with a history of stuttering. These findings indicated therefore that stuttering is nearly ten times as frequent in the families of stutterers as in the families of non-stutterers. A further examination of the pedigrees in his study revealed no consistent tendency for either an inheritance by females from male parents or the inheritance by half the offspring of female stutterers. In conclusion, Meyer states: "There is no evidence, therefore, that stuttering is inherited either as a simple recessive or as a sex-linked genetic factor. Leaving aside then a genetic explanation, it is justifiable to consider other possible factors responsible for the tendency for stuttering to occur in families."

An examination of the family histories in this study showed that in 9, or 45 percent, of the cases, there was a history of other stutterers in the family. Of these, in only one instance was stuttering noted in the families of both parents.

TABLE III

AGE OF ONSET AND PRECIPITATING CAUSES OF STUTTERING

Age of onset	Precipitating causes
6	Frightened by the fear of being left alone in a "haunted house."
?	Unknown cause.
12	Tense and worrisome home environment.
8	Frightened at the scene of his brother's accidental death.
?	Tense and worrisome home environment.
6	Cause unknown.
7	Frightened by a large dog.
11	Tense and worrisome home environment.
?	Cause unknown.
7	Frightened by the fear of undergoing a tonsillectomy.
6	Tense and worrisome home environment.
?	Cause unknown.
5	Forcible conversion from left to right-handedness.
?	Tense and worrisome home environment.
7	Cause unknown.
9	Stuttering following an attack of encephalitis lethargica.
?	Tense and worrisome home environment.
?	Cause unknown.
8	Frightened by an accident while swimming plus anticipation of being punished by a parent.
?	Tense and worrisome home environment.

? = Unable to recall age of onset.

4. *Psychiatric Implications.*—Stuttering must be considered as a symptom of an underlying neurotic condition. It is a complex syndrome with multiple etiology, and only through a psychosomatic approach can we expect to understand its nature.

The stutterer hesitates in making any decisions and is in a constant state of fear. He

has difficulty in speaking only in certain situations, and usually this situation represents a threat to his personality. It is commonly known that the stutterer can sing freely, and that when alone or in certain definite situations he is altogether stutter-free. Speech to the stutterer becomes an acutely conscious process and is usually associated with feelings of fear and embarrassment. The stutterer may develop numerous devices or tricks to avoid the bugaboo word or momentarily release anxiety, such as pinching himself, talking in a mechanical tone, or by rhythmically swinging his arm. This in turn serves only as a momentary release, building up all the more conflict and anxiety.

The early childhood history usually reveals traumatic experiences, nightmares, fears, hysterical manifestations, disturbances of sleep, nail-biting, enuresis and emotional lability. Similar findings were discovered in about three-quarters of the case histories reviewed. The outstanding characteristics discovered in all patients were the element of fear and the general tendencies to asocial behavior.

Attempts to clarify the problem of stuttering through correlated studies by means of blood determinations, electroencephalography and the Rorschach method have led to no definite conclusions, beyond confirming the state of persistent chronic anxiety.

Summary and Conclusion

The study of 20 stuttering psychotic patients at the Central Islip State Hospital showed:

(a) One in every 350 psychotic patients or .28 percent, stuttered. (b) The psychiatric diagnosis was mainly schizoprenia. (c) Fifteen cases were of the introverted type and 5 cases of the extrovert variety. (d) The family history presented some degree of neuropsychiatric or psychosomatic disorder in every case except two where such information was not available. (e) The personality make-up of the majority of the patients appeared to be of a schizoid variety. (f) The physical examination presented no definite findings for establishing the etiological basis of stuttering. The neurological examination revealed no evidence of peripheral neuromuscular involvement or any pathology of the speech organs. (g) Nearly every case presented symptoms of acute or chronic anxiety. (h) The ages of onset of stuttering were recalled in 12 cases. These ranged from 5 to 8 years in 10 cases, beyond 10 years in 2 cases. (i) The ratio of males to females was 4 to 1. (j) Of the 20 patients examined 7 could attribute the symptom of stuttering to some specific happening. (k) In 9 cases there was a history of other stutterers in the family—in one instance stuttering was noted in the families of both parents. (l) Stuttering must be considered as a symptom of an underlying neurotic personality reaction. It is a complex syndrome and not due to any single etiological factor. Only through a psychosomatic approach can its nature be understood. (m) The difference between stuttering personalities in neurotics and psychotics is one of degree only.

The writer is greatly indebted to Dr. David Corcoran, Senior Director of the Central Islip State Hospital, Long Island, for permission to make this study.

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COMPARATIVE INCIDENCE OF NEUROPSYCHIATRIC CASUALTIES IN WORLD WAR I AND WORLD WAR II [1]

JOHN W. APPEL, MAJOR, M.C., GILBERT W. BEEBE, CAPT., M.A.C., AND DAVID W. HILGER, MAJOR, M.C.

Statistical comparisons of reported incidence of neuropsychiatric conditions in the United States Army in World War I and World War II must be made with considerable caution. For several reasons the reported rates are only roughly related to the actual incidence of neuropsychiatric disorders in military personnel. Changes in administrative policies have resulted in gross fluctuations in the rates for this war. The present figures, although not entirely reliable, are sufficiently accurate to permit reasonable conclusions as to the magnitude of the problem; while, in World War I, reporting of neuropsychiatric conditions is known to have been much less complete and, in some instances, quite unreliable. When possible, adjustments have been made to correct these deficiencies in the charts shown here. An important factor is that in the present war the Army has been much more alert to psychiatric disorders than it was in the last, and has recognized many truly psychiatric conditions which in World War I were attributed to other causes. It remains true today, however, that many clear-cut cases are not recognized as psychiatric, or at least not diagnosed and classified as such, and are labeled "gastro-intestinal disorders," "low back pain," and the like. With all due allowances for these shortcomings in the reported rates, the evidence clearly indicates that the actual incidence of neuropsychiatric conditions is significantly higher in World War II than it was in World War I.

Fig. 1 provides a statistical comparison of neuropsychiatric admissions to both hospital and quarters in the American Expeditionary Forces in World War I [2] with that in the European Theater in World War II.[3] Since admissions to quarters were not recorded in World War I, the reported rates have been adjusted on the assumption that for every three admissions to hospital for psychoneurosis, behavior disorders, psychopathic states and mental deficiency, there was an additional admission to quarters. With the advent of intensive combat the World War I rates increased by about 150 percent whereas those of the present war increased by about

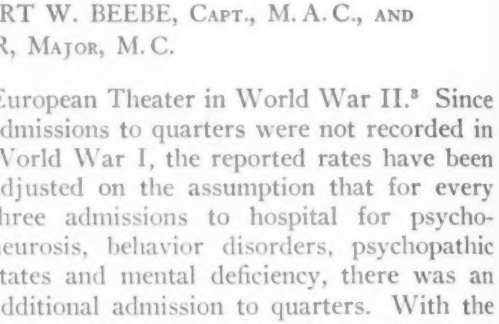

FIG. 1.

300 percent. The theater rates for the recently concluded action have been about two to three times those for the active combat period in World War I. The theater casualty rate for 1918 more nearly approximates those of 1944-1945 if account is taken of the higher proportion of noncombat troops in the present war. An entirely satisfactory comparison of casualty rates for combat divisions cannot be made but the evidence suggests that rates for *divisions in the line* from

[1] From the Surgeon General's Office, U. S. Army, Washington, D. C.

[2] Medical Dept., U. S. Army in the World War, Vol. XV, Statistics, Part 2, Medical and Casualty Statistics, Washington, U. S. Government Printing Office, 1925, 1,368 p.

[3] Unpublished tabulations, 1945, Medical Statistics Division, Office of The Surgeon General, U. S. Army. These figures are provisional, and may differ slightly from final data to be published subsequently.

26 September to 11 November 1918[4] were five to six wounded per 1,000 men per day as against four to five for the period 6 June to 30 November 1944. The average neuropsychiatric admission rates for divisions in the line and in reserve were about 140 per thousand men per year for the A.E.F. and 260 for combat divisions on the European continent from June through November.

These differences cannot be attributed to inferior screening in this war, since the neuropsychiatric induction examination and criteria for acceptance are unquestionably far more rigid now than in World War I. One possible explanation is that the mental health of the nation has deteriorated in the twenty-five years since the last war; however, the evidence for this is far from conclusive and there is considerable evidence to the contrary. Certainly it is well known that the physical health of the young men of today is considerably better than that of their fathers. Another possibility is that classification and assignment of personnel in this war is less satisfactory than it was in the last, and that a greater number of men have been placed in jobs for which they are not fitted by training or inclination and that as a consequence they develop symptoms of maladjustment. However, evidence seems to indicate that the classification system is at least as good in this war as it was in the last, if not considerably better. Undoubtedly the most important single factor in the health of an enlisted man is the quality of the leadership to which he must submit and yet there is no reason to believe that the leadership in this war is inferior to that in the last. Certainly the training of junior officers for the present conflict has been as thorough as in the last war, and their knowledge of human motivation and behavior cannot be less than that of their predecessors. Certainly also their ability to supply equipment, food, furloughs, entertainment and recreation is greater than in the last war. It is undoubtedly true that the problem in this war as a whole is rendered more severe by the prolongation of the war and particularly by prolonged combat without adequate relief. However, the foregoing chart on incidence shows clearly that high rates in the European Theater occurred in the second month after D-Day as well as after prolonged combat. It is possible that, regardless of the casualty rates, modern warfare is more terrifying, and many would attribute some of the differential psychiatric rates to this cause. The mental hazards of this war are probably greater than even the trench warfare of 1918. There are such factors as new weapons of greater ferocity and killing power, greater rapidity of movement, higher criteria for the ability to take responsibility and make decisions, and higher requirements as to mechanical skill and knowledge. It does not appear, however, that the degree of difference in this respect between this war and the last is enough to explain the wide variance in the neuropsychiatric rates. Finally, there is another major factor, namely that of the emotional conviction as to why we fight. It has been said that in the last war the men seized their guns with enthusiasm and were carried through hardship and danger by the emotional conviction that they were fighting a war to end all wars. In this war such a spirit has been conspicuously absent. The majority of men were drafted in a spirit of resignation; they have felt that there was a job to be done, but they have felt resentful that they rather than someone else were selected to do it. This difference in attitude is perhaps the most outstanding difference in the psychiatric picture of this war as compared with the last. It is now well established that absence of the will to fight, absence of the sense of immediate threat, and absence of anger at the enemy all predispose to psychiatric disorders.

With respect to the interrelation between combat and psychiatric admissions the experience of the two wars is probably even more similar than the statistical material suggests. The theater rates for wounded and neuropsychiatric casualties in Fig. 1 are shown in both the usual form and as index numbers having as a base the average rate for the period in each case. The intimate relationship is evident. The incidence of wounding is an index of the intensity of combat, which is thus shown to determine in large part the incidence of neuropsychiatric casualties in both wars.

[4] Love, Albert G.: War Casualties, Army Med. Bull. No. 24, pp. 1-177, 1931.

As with so many combat lessons, it was necessary to relearn in this war what was known before the United States entered the first World War, namely, that treatment of psychiatric casualties in the most forward areas is more effective than in rear areas. Psychiatrists were assigned at the divisional level to prevent the evacuation of excessive numbers of men and to return to immediate duty as many as possible. During the first World War 40 to 70 percent were returned to some type of duty in the forward areas. In the present war 40 to 60 percent are returned to full combat duty, and an additional 20 to 40 percent of the cases occurring in combat are returned to non-combat duty in the theater.

It is not only combat which has caused high neuropsychiatric admission rates in the present war. This is readily appreciated from Fig. 2 which compares admission rates for wounded and for neuropsychiatric patients for 1918,[2] and for 1944[3] by theater of operation. Only one of the present theaters reports a lower rate than that of the A. E. F. in 1918, although none except the European and Mediterranean Theaters experienced casualties on a commensurate scale. The Southwest Pacific Area illustrates the complexity of the problem for, with an intensity of combat less than half that of the Mediterranean Theater, the Southwest Pacific Area reported a higher neuropsychiatric admission rate during 1944. Thus it is apparent that in overseas theaters, in addition to prolonged combat and deficient motivation, there are other factors which are related to a high neuropsychiatric rate. A considerable number of men have been overseas for three years, many for two years. They have been subjected to tropical and other adverse climates and have been forced to exchange their normal social and cultural environment for the monotony of the jungles, deserts and isolated Arctic outposts. Thousands have been placed in base areas where they were not fully occupied and felt a sense of purposelessness in their sacrifices. In short, they have suffered more prolonged personal sacrifices on a very much greater scales than did troops in the first World War.

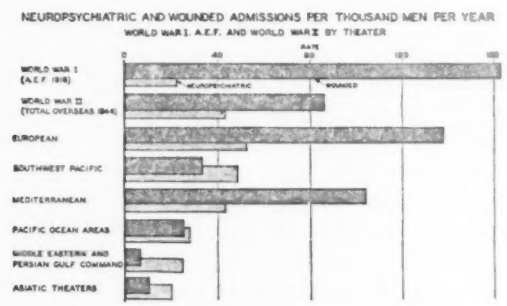

FIG. 2.

In Fig. 3, neuropsychiatric admission rates for Zone of Interior troops are contrasted with discharge rates for these disorders in the entire Army for the two wars.

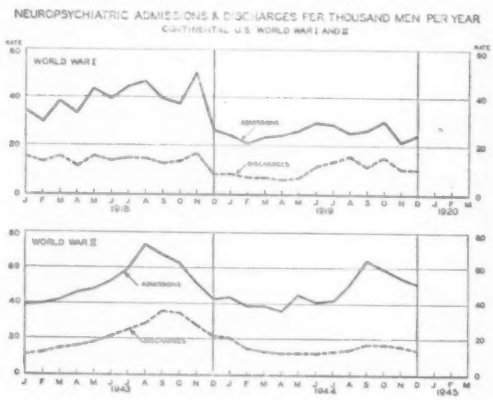

FIG. 3.

Since discharges include patients admitted overseas as well as those from the Zone of Interior, the two rates have very different bases. During 1918 both rates[2] increased gradually and then, after the Armistice, fell off to entirely new levels. The marked fluctuation in the two curves in World War II[3] clearly shows that factors are operating to cause increases in the *reported* incidence of neuropsychiatric conditions that were not present in World War I, for a large share of the neuropsychiatric discharges in World War II have involved patients admitted in the U. S. These factors are changes in administrative policy involving the utilization of manpower which have resulted in the use of non-medical criteria as the basis for defining medical disability caused by neuropsychiatric conditions. These fluctuations cannot be considered as evidence of fluctuations in actual disability even though they

are reported as such statistically. Aside from this effect of administrative policy on the neuropsychiatric rates in the Zone of Interior

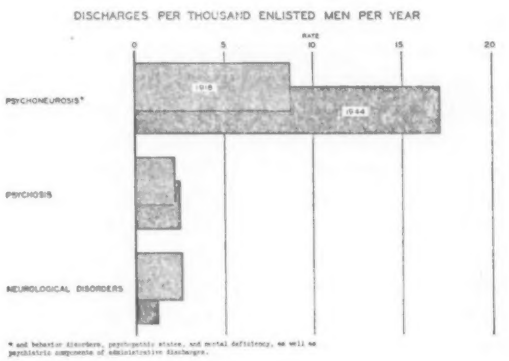

FIG. 4.

in this war, it is believed that poor motivation and morale are most important factors effecting higher neuropsychiatric rates in World War II.

In the last war all discharged neuropsychiatric noneffectives were given certificate-of-disability discharges. In the present war a significant number receive administrative discharges. A comparison is made in Fig. 4 using the categories psychosis, neurological disease, and other neuropsychiatric conditions (principally psychoneurosis). In order to facilitate comparison with World War I, psychiatric components of administrative discharges have been added to the 1944 discharge rate for psychoneurosis and other neuropsychiatric conditions. It is in the latter category that the greatest difference exists between the two wars. The conditions grouped in this category are also of special interest since the incidence and relative effectiveness or noneffectiveness of personnel with these conditions is more directly influenced by administrative policy and procedure, and by morale and motivational factors than of personnel with neurological disease or psychosis. The 1944 discharge rate for these conditions is twice that for 1918.

PSYCHIATRY IN HANFORD[1]

WALTER A. NOEHREN, M. D.

This paper describes the problems of one of the more unusual civilian war time communities and shows, in particular, the need for adequate psychiatric care in such a community.

In 1942, as a part of the program for the development of the atomic bomb, the Manhattan district of army engineers selected the vast desert of the Columbia river basin in the eastern part of the State of Washington as the site for the production plant for plutonium. This was hot desert country, isolated and virtually uninhabited. Construction of the plant began in 1943. Plant units, the now famous plutonium piles, were built in dispersed locations in a 600 square mile area, in the midst of which a construction camp of 60,000 persons mushroomed into existence. This was the city of Hanford, a "rush" town if ever there was one. It's served its purpose for the 1½ year construction period, then was evacuated in 1945 when plant operations began, so that it is now a ghost city. Operations personnel for the plant live in the village of Richland, which has been constructed on the edge of the area some 27 miles from Hanford.

The conditions of life in this city camp were well defined. Because it was so isolated, the city had to be self-sufficient and adequate to keep workers interested in staying there for the duration of the job. The nearest other communities were Pasco, 40 miles distant, with a population of 6,000, and Yakima, 60 miles distant, with a population of 30,000.

Hanford developed rapidly to its full size. Although the maximal population at any one time was 60,000 persons, there was considerable turnover of labor, in spite of efforts to prevent this, and an aggregate of 140,000 persons lived in Hanford during the 1½ year period. The large turnover was due to several factors, chief of which was the unpleasantness of the environment. Terminations were most frequent after the desert sand storms, so that the storm winds came to be called "termination powders."

There were no provincial mores or traditions to influence life in Hanford except for those brought in or created by the people and by management. The general social structure was simple. The entire project was built by the DuPont Company under contract with the army engineers. DuPont "line management" organizational structure was applied to all aspects of community life, including job, housing, restaurants, medical care, patrol, fire, transportation, schools and amusements. A few army personnel were present on the project, but only to observe that DuPont carried out its contract properly and that military security was maintained. The traditions of the DuPont Company were evident throughout, consisting of considerable pride in company, and in the type of stratification and regimentation which is a part of line management. The authoritative positions were held by men who had been with DuPont previously and who were well versed in "company policy." Most of the people of Hanford, however, had never worked for large industrial concerns and were unaware of the sense of pride which is inherent in such organizations.

These people of Hanford were an heterogeneous lot, recruited from all corners of the United States at a time when the labor market was thoroughly depleted. They were sought out by recruiters who were hard pressed to fill quotas. More people came from the southwest and midwest than elsewhere, but no groups were large enough to maintain their identities. Many came from poor rural areas. Anyone reasonably able to work was signed by the recruiters and given train fare to Pasco. There was no time for recruitment physical examinations or investigations in the field, and even had these been possible, labor was too scarce to allow selection. Many of those who came were excellent workers with good employment records. They were attracted by high wages, the stated importance of the work and opportunity to travel to the northwest.

[1] From the Medical Department, Hanford Engineer Works, Hanford, Washington.

Many, however, were drifters who had never been able to hold good jobs in peace time. Some were escaping unpleasantness in their home environment, varying from simple maladjustments to the difficulties which accompany mental illness or criminal prosecution. Included in this group, for example, were many epileptics who were trying again to get work.

Most of the people came long distances to Hanford by crowded train. They arrived fatigued and occasionally ill. They came then into a desert construction city, an environment truly fantastic and foreign to them. Upon arrival, they were necessarily herded about and required to wait in long lines for the proceeding of hiring, which took a matter of days to accomplish. During the period of rapid growth of the project, more than 500 persons arrived daily, all of whom had to be interviewed, provided housing and assigned to work. They were given preemployment physical examinations, but this was of a cursory kind and succeeded in screening out only a very small proportion of those who later proved physically or emotionally incapable of the work.

The investigation of new employees had to be detailed because of the security problems of this highly secret project. Data were obtained by a special investigations department which interviewed new arrivals, and wrote or phoned to references for further information. The investigations were continued after the initial hiring, and the data obtained in this manner, including records of previous mental illness or hospitalization, proved to be of considerable assistance in the psychiatric work.

Economic circumstances in Hanford were relatively uniform. Everyone was employed and well paid. Many of the persons from poor rural sections made as much money in a few months as they had made in their entire lives previously. There were a few unemployed "hangers on" who stayed in the city after they had been rejected or fired, and there were a few professional gamblers and prostitutes, but these were rounded up by patrol and made to leave the city as soon as discovered.

Living conditions were uniform. There were simple barracks and hutments for men, and slightly more comfortable, but similar barracks for women. Two persons were assigned to each barracks room and twelve to each hutment, usually without prior acquaintance. Roommates often proved incompatible. Husbands and wives had to live separately if they lived in barracks. There was a huge trailer camp however, where families brought their own trailers. The camp contained 4000 trailers and housed 12,000 persons at its maximum size. Family groups were of varying sizes up to the one family with 10 children, all of whom lived in one trailer. The workers who lived in the trailer camp were a more stable group than those who lived in barracks.

There were separate barracks and trailer camps for colored people, with separate eating and recreational facilities as well. Management sought not to discriminate, but considered it necessary to separate white and colored housing units in the interest of the job. In the hospitals, white and colored were treated equally and on the same wards.

Feeding in this city was accomplished in eight great mess halls, the largest of which was capable of serving 13,000 persons at one meal. Food was served family style, with "all you can eat for 67¢." People had to wait in lines to be seated. Once at the table, and the motion toward the table was a surging, the food was literally reached for and devoured with primitive, competitive haste. The food the first year was poor. Episodes of food poisoning were all too common and would involve upwards of 200 persons in each instance. This manner and quality of eating had a detrimental effect on the emotional tone of the community and influenced the labor turnover. In the course of time, both the serving and the quality were improved, with considerable benefit to the community.

Minimal recreational facilities were developed, not to provide recreation *per se,* but to stabilize labor. These facilities were very limited in the early months of Hanford, but were gradually enlarged. The first "rec" hall was constantly a crowded melee. In one portion of the hall, 1800 gallons of beer were consumed of a normal evening during a four hour period. To buy beer, which was served by the pitcher, one had to be seated, in compliance with the laws of the State of Washington. Since there were only 1200 chairs,

these were in great demand, and as an evening would wear on, a chair could be sold for from two to five dollars. Movies were at first shown in a tent. Later, a theatre was built, and the tent became a church. Facilities ultimately included movie theatres, pool and billiard rooms, bowling alleys, a great auditorium which was dramatically constructed in two weeks time, baseball diamonds, tennis courts, and artificial lake for outdoor swimming.

The goal of Hanford was well defined. Even though the workers did not know what it was they were building in the desert, they knew it was an important, secret war plant which was needed urgently. All aspects of life in the city were subordinate to the building of the plant. All decisions, including those relative to medical care, were measured in terms of what was necessary to accomplish the all important job. Top supervision was preoccupied with the construction of the plant itself and could give only slight attention to the social problems of the community. These problems were delegated to subordinates who were of varied ability and experience.

The DuPont medical division, used to first aid work and industrial hygiene, had never previously dealt with general medical care and had never previously considered the problems of psychiatry. Furthermore, in spite of considerable effort to this end, medical supervision did not succeed in obtaining as adequate or as well trained a staff as was sought. In the hectic winter months of 1943-44, there was a ratio of only one physician for each 3,000 of population at Hanford. There was no physician with any training in public health, and there was no board member in any specialty.[2] With these handicaps, medical care became a difficult problem. Care was given on a private practice basis, the physicians pocketing the fees in addition to a salary. Fortunately, the flu epidemic of 1943 was mild in Hanford. The most serious threat was an outbreak of meningococcic meningitis. Fifty-two cases of this disease occurred, with 8 cases in one week. No isolation hospital unit had been planned and infectious cases had to be cared for in a makeshift facility converted from a barracks.

At the onset, it had not been thought that there would be need for special consideration of psychiatry, even despite the forehand knowledge that the project would be large, and that it would contain an heterogeneous, subnormal population placed in a difficult environment. Those in authority felt that the problem would be small, and that it could be handled by general practitioners using ordinary hospital facilities. Thus, during the first six months, mental cases, when recognized, were treated by whatever doctor happened to receive them under his care and were placed in a general hospital ward or room, or were detained in jail. Such patients were guarded by patrolmen, who had no training or experience in such matters and who even wore their guns, for example, while attending disturbed patients. Ambulatory patients, referred to the medical department because of abnormal behavior, were briefly and inexpertly interviewed, and little was done to help them. Many persons with mental illness were handled by patrol, arrested or discharged from their jobs, escorted to the limits of the reservation and quickly forgotten. These unfortunate persons then often became involved in difficulties in nearby communities, for they were stranded there, mentally ill, far from home, and without resources.

In spite of these facts, it was not particularly apparent to supervision that there was anything amiss. There was an awareness that problems existed, but Hanford was simply considered a rough town. Winchell advised mothers not to let their daughters go there. Neighboring communities were unhappy about Hanfordites. The unfortunate persons who were ill suffered from the inadequacy of their care, but the situation was not unique, for it exists similarly in many communities throughout the country today.

To remedy these matters, and under force of necessity, a psychiatric service was developed by the medical department in February 1944. The care of hospitalized psychiat-

[2] This is to be compared with the companion area of the Manhattan district at Oak Ridge, Tennessee, where medical care was given by a carefully selected group of army physicians, including qualified specialists, and including a 5 man department of psychiatry. Cf: Clarke, Eric K. Psychiatric problems at Oak Ridge. Am. J. Psychiat., 102: 437-444, January 1946.

ric cases was centralized in a makeshift barracks unit neighboring the barracks which had been adapted for contagious cases. This was possible more because mental cases were considered undesirable and unremunerative by members of the staff rather than because of any administrative plan. The temporary facility was inadequate, as is illustrated by the following two cases:

CASE 1.—A 35-year-old single colored male laborer, who was said to have often behaved strangely in his home community, a small town in Louisiana, was recruited and sent to Hanford. No further past history was obtainable, and this much was by hearsay from others of the group who had come with him from the same area. He was said to have been quiet and to himself in the four day journey. On his first evening in Hanford, he was an innocent bystander to a fight, and became involved in the brawl which developed. He was arrested with the others and taken to jail, which was crowded at the time. He became terrified, and believed he was to be lynched. He became highly disturbed and continued so all night, praying and shouting. The other prisoners in the same cell feared him and were unable to placate him. He was transferred to the psychiatric barracks. The two rooms which had been reconstructed for disturbed patients were occupied so that this man had to be placed in a regular room. He was disoriented and spoke incoherently. It was impossible to converse with him and difficult to examine him. There were no evident physical abnormalities. Pupils were dilated, reacted to light. Reflexes were normal. Two hours after admission he succeeded in breaking the lock to his door and escaped the building, evading the patrol attendants. He was pursued for over a mile, but was apprehended when he attempted, in his desperation, to swim the Columbia river.

CASE 2.—A 26-year-old single male patrolman, who had been employed for two months on the patrol force, suffered a convulsive episode which was followed by a post-convulsive psychotic state. He had a past record of similar episodes with commitments to state institutions and, in addition, was an escaped criminal. He had falsified his past record when being interviewed at the time of hiring, and the investigations department had just received the first report of his past irregularities at the time he became ill. He was detained in one of the reinforced rooms. Commitment was sought on the third hospital day, but he demanded a trial by jury, which was his right in the State of Washington. Two days later, having obtained matches somehow, he set fire to his mattress to distract the guard, and made his escape. The fire was brought under control, but after some concern, for the building was highly inflammable.

Later, a new hospital building was constructed to replace all of the temporary barracks facilities. The new unit contained a modern, 25-bed, psychiatric ward of excellent design. It was completed by June 1944, ten months after the onset of the Hanford project.

The work of the psychiatric service was severely limited by the lack of time and personnel. At most, the half-time of one physician and the full-time of one nurse social worker was all of the professional personnel available, with additional regular nursing staff as required for hospitalized patients.

Because of the simple governmental structure of Hanford, with all phases of community life controlled by the various departments of the same company, close cooperative effort between these departments was easily possible. In psychiatry, very helpful cooperation was available with general medical care, with investigations, with patrol and with military intelligence. The investigations department referred directly to psychiatry any individuals whose past history or present behavior appeared remarkably abnormal. Psychiatry, furthermore, was able to obtain from investigations considerable data concerning any person needing care. Patrol, likewise, referred persons of abnormal behavior directly to psychiatry, or asked opinion concerning individuals in jail whose behavior was unusual. A lecture on psychiatry was included in the patrol training course. The advantages of the coordination of effort of patrol and psychiatry became increasingly evident as the program evolved. The police problems of Hanford were of themselves of considerable interest. They were disproportionate to the size of the community with a higher incidence of crime in some periods than Seattle, which has a population of 700,000.

One of the most interesting aspects of the psychiatric work in Hanford was the fact that in this civilian community in which the conditions of life were measurable and uniform, all of the citizens were under close scrutiny both as concerns their past records and their present behavior, so that one could reasonably measure the volume of the psychiatric problem.

Alcoholism was one of the more difficult problems of concern to both patrol and psy-

chiatry. The nearest liquor store was in Pasco, 40 miles away, but this did not prevent the consumption of a large quantity of spirits in Harford, in addition to the beer sold in the "rec" halls. There was considerable bootlegging, twenty dollars being the standard price for a quart of liquor. Wine was imported in some quantity. It is said that one individual even tried to establish a still in his trailer. Patrol constantly prosecuted this traffic in liquor and undoubtedly succeeded in preventing more widespread difficulty.

There were many chronic alcoholics in Hanford, a large number of whom came into difficulty. Some were simply discharged from their jobs and escorted off the reservation. Intoxication on the job was not tolerated. Drunkenness in off work periods was tolerated when not creating a public nuisance. The more severe alcoholics, who became ill, had to be hospitalized and cared for. The administration was loath to hospitalize cases of uncomplicated alcoholism, since it was felt they could be kept overnight in jail and then be discharged. Hospitalization for as long as four days of patients with delirium tremens was criticized. Furthermore, alcoholism, even of marked degree, was not admitted to be a disease entity adequate to allow these patients to be given their return fare home. (It was a general policy that persons incapable of work because of disease or disability which antedated their employment, would be returned to their homes at government expense.) The administration was fully aware of the inadequacy of its approach to alcoholism and sought constantly to develop logical policies. In any large community this problem is difficult at best. It was more so in a city camp like Hanford with its rough population, its drab environment, its haste and urgency.

The following data indicate the volume of work done by the psychiatric service in a sample period. These data are for the month of May 1944, at which time the population of Hanford was at 60,000.

One hundred and sixteen cases were admitted to the hospital psychiatric service during that month. Of these 116 hospital admissions, 28 were given medical termination of employment, and 15 were rejected for employment. All of these were returned to their homes at government expense, with escort where necessary. Six patients were committed to mental institutions in the State of Washington. Of the rest, most were advised to return to work (usually under closer supervision or in a different and more suitable job). During the same period, 81 patients were seen as out-patients. Of these, 3 were given medical termination, and 5 were rejected for employment. Eighteen were advised to terminate voluntarily, and the remainder were advised to continue at work.

The diagnoses on hospitalized cases were as follows:

Alcoholism	60
Epilepsy	19
Psychopathic personality	7
Schizophrenia	16
Psychosis, type undetermined	5
Paresis	1
Observation (no diagnosis)	8
Total	116

SUMMARY

The psychiatric experience in Hanford, Washington, a community of 60,000 persons which existed for 1½ years during the construction phase of a war plant situated in a drab, isolated, desert environment, is related. The need for a planned psychiatric program in such a community is demonstrated.

MEN WITH BRAIN DAMAGE

JOHN A. AITA, Captain, M.C., A.U.S.

The over-all picture of war casualties permits some segregation of anatomical-functional groups. We speak of amputees, the blind, the paraplegics, the plastics and head injury cases as groups requiring special care. The army neurological-neurosurgical center has among its main problems that of men with head injuries. One portion of this great problem concerns the treatment and rehabilitation of men with known and often severe damage of intracranial structures. These men with skull defects, intracranial foreign bodies, hemiplegias, visual loss, convulsive seizures and impairment of cognitive and other personality functions must remain under close supervision of the neurological-neurosurgical service for careful evaluation of the healing of their wounds and actual disability, and for definitive treatment.

This war has permitted us to study intimately large groups of young, healthy men with severe alteration of intracranial structures, who, for the first time in history, will live and somehow adjust because neurosurgical skill and control of infection now allow them to do so.

Of 500 consecutive admissions of craniocerebral injury to an army general hospital, 200 (40%) were determined to have *proven* brain injury by surgeons' notes and neurological findings. Of this 200, 64 (32%) were considered markedly disabled by reason of severe and often multiple deficits. The following are examples of such cases.

Illustrative Cases

1. Twenty-four-year-old white male, severely injured in automobile accident 4½ months prior to entry. Severe fracture of right frontal bone with destruction of both frontal lobes, particularly right. Unconscious 4 days. Displayed many decerebrate features for several weeks. Delirious and amnesic 45 days. On arrival, examination revealed huge right frontal skull defect. Morose, immobile facies, anosmia and other minor neurological signs. Complained only of headaches. Quite depressed over plight and death of brother in this accident. Bewildered, introspective and sensitive. Much cosmetic restoration to be done. Wechsler-Bellevue intelligence scale revealed definite slip from previous attainments although mental age was still average adult. Marked loss of abstract thinking ability. EEG tracing demonstrated focus of very slow waves in the right frontal region.

2. Twenty-four-year-old white male admitted 4 months after being wounded by shell fragments in the right frontal region, penetrating to right occipital region. Unconscious 24 hours and subsequently amnesic for a prolonged but undetermined period. On entry, chief residuals were left hemiplegia and astereognosis. Appeared dull, shy and retiring. EEG tracing showed generalized abnormality. Wechsler-Bellevue scale revealed considerable fall from previous attainment and organic type performance. Mental age dull normal. Rorschach responses classically organic.

3. Twenty-six-year-old white male incurred injury 2 months prior to entry when heavy tank hatch cover fell on head. Incurred severe depressed fracture of the right frontal bone including roof of the orbit. Had no idea what happened. Unconscious 2 days. Amnesic for undetermined period. Destruction of the right frontal lobe and optic nerve. On arrival, complained of visual loss in one eye and polydipsia. Examination revealed destruction of right optic and oculomotor nerves, bilateral anosmia, and left hyperreflexia. Naive good humor. Diabetes insipidus. Psychological performance average adult but could not be considered organic.

4. Twenty-four-year-old white male, wounded by shell fragments 6 months prior to entry. Struck in left parietal region, penetration to right occipito-parietal region. Also incurred severe laceration of right arm and fractured humerus. Aphasia and visual loss evident early. Unconscious less than one day, denied more than a few days' amnesia. Tantalum plates inserted to cover skull defect on three occasions to date, each time removal necessary because of infection. Recent right Jacksonian seizure. Neurological examination revealed slight aphasia residual, right hemiparesis and dyspraxia, left Babinski and right lower homonymous quadrantanopsia. Appeared simple, dull, childlike, anxious and complaining. Psychological performances indicated dull normal intelligence, definite slip from previous attainment. EEG tracing showed only scattered 6 to 7 per second waves with higher voltage in right temporal region.

5. Twenty-two-year-old white male entered this hospital 3 months after wound by shell fragments. Penetration in left frontal region to at least left lateral ventricle. Also incurred severe frostbite with gangrene of several fingers. Amnesic for 6 weeks and incontinent several months. Upon arrival he was severely aphasic, blind in the left eye and bedridden because of severe right hemiplegia. Actions bespoke frontal lobe deficit. EEG indicated generally disturbed, slow record with higher voltage in left temporo-occipital area. Psycho-

logical tests revealed high average to superior performance.

6. Twenty-year-old white male entered 7 months after wound by shell fragments which struck right occipital region, penetrating to left frontal lobe. Also incurred compound, comminuted fracture of right radius. Unconscious 6 days and amnesic 6 weeks. In decerebrate rigidity for many days. On entry, severe right hemiplegia and marked paresis of the left leg noted. Cortical sensory loss in the right extremities and left homonymous hemianopsia. Unstable emotionally, raged easily, but at other times happy and vociferous. EEG tracing showed generalized disturbance with focus in left occipital region. Psychological tests indicated performance at high moron level.

7. Twenty-one-year-old white male wounded by gunshot in right occipito-parietal region 8 months prior to entry. Unconscious 7 days, amnesic one month. For long time, felt he would not live. Developed hernia cerebri, much local infection, necessitating excision of right occipital lobe. Long bedridden, emaciated and decubitus ulcers. Examination revealed severe left hemiplegia, cortical sensory loss and left homonymous hemianopsia. Extremely depressed, painfully aware of situation, petulant. EEG surprisingly revealed only moderate, generalized abnormality. Psychological investigation revealed much disturbance particularly in all performance tests that could be given. General retainment at dull normal level.

8. Twenty-one-year-old white male wounded by gunshot 2 months prior to entry. Struck in right parietal and vertex regions. Recalls being struck. Became unconscious only many minutes later. Subsequent amnesia of undetermined length. Hernia cerebri. On arrival, demonstrated triplegia and use only of left upper extremity. Cortical sensory loss. Incontinent. Facial expression fixed. Conversation naive and anxious. Emotionally unstable. EEG revealed generalized slow waves with larger voltage in right occipito-parietal region. Psychological performance left no doubt as to deficiency in all tests which he was able to take. Dull normal intelligence range.

9. Twenty-six-year-old white male wounded by shell fragments 3 months prior to entry. Penetrated deep in left occipito-parietal region, past mid-brain and into right frontal region. For many weeks after was moribund, with clonic contractions of left upper extremity. On arrival, had left hemiplegia with cortical sensory loss, right anosmia, slight residual aphasia, left homonymous hemianopsia and other obvious intellectual losses. High moron level. Appeared dull, shy, placid, slept excessively.

10. Thirty-year-old white male wounded by shell fragments 3 months prior to entry. Penetration left occipito-parietal region, to the left lateral ventricle. Recovery complicated by infection. On arrival, examination revealed a right homonymous hemianopsia, multiple agnosic-apraxic disturbances and right hemiparesis. Dull, placid, contented. EEG tracing revealed generalized abnormality, more marked on the right. Psychological evaluation, high moron level.

Seeing such cases arrive at our hospital day after day, 2 to 6 months after injury, we were struck by two things: First, by what the human brain can take and recover from; second, that there is more here than a mere dissolution of nervous pathways to be clinically labeled "posttraumatic encephalopathy."

Brain damage of any severity results in a major disorganization of personality. Overwhelming liabilities and deficits become manifest. Agnosic-apraxic disturbances may occur, gross or subtle. There is often a general lapse to a more childlike level of thinking. Higher social sensitivities and responsibilities diminish. Interest and planning are deficient. Mood control becomes unstable or erratic. Rebelliousness or passive acceptance of invalidism may appear. There may be a general intellectual slump or more specific intellectual abilities may be outstandingly deficient, such as the ability to handle abstract concepts(1).

However, let it be known that men with even severe brain injury as described do not usually deteriorate to the intellectual level of morons, imbeciles or "dements." We saw only 3 patients (among 64) whose general intellects were so impaired that they might ultimately require guardianship. Many men had slumped, broadly speaking, to just an average or dull normal level of general intellectual performance. Those with previous good attainment suffered less, however, as they apparently had a greater margin of safety or "further to fall." It was common to find that a particularly dull individual had always been dull.

Among men with brain injury, we came to look more for losses of specialized intellectual functions than for wholesale devastation. Unless this scrutiny were undertaken, many would give the impression of little disturbance in general intellectual function.

Psychological tests(2) of intellectual components reveal loss of ability to analyze and synthesize. These patients are unable to change their method of attack on problems or to shift their attitudes or concepts. Memory defects are manifest for concurrent or new situations. They show a lack of anticipation, organization or planning ability. They are unable to deal comprehensively with variables, more than one aspect or dual relation-

ships. It is difficult for them to handle new problems, especially those not depending on old information and habits. Attention and concentration are impaired though these may be related to anxiety. Their thinking often shows evidences of helpless repetitiousness, stereotypy or actual perseveration. They try doggedly, often recognizing their inadequacy, but are helpless to change their attack. They proceed with much uncertainty. They are often easily distractible. Insight is sometimes painfully existent. Reactions of anxiety, hypochondriasis, depression, and occasionally even hysteria are evident among this group.

However these many liabilities do not remain rigidly set or go unbalanced. Just being alive, just living in a ward will serve to change things. In each case, a dynamic reaction takes place which is unique and individual.

The reaction of the total personality to cerebral deficit depends upon several inseparable variables. On the one hand, there exists the trauma and alteration produced by it; on the other hand, the personality who experiences these things. It is reasonable to believe that there are no two human brains quite alike. The life experiences, conditioned reflexes and delayed reflexes of each person have made his own brain unique and, if anything, unpredictable. A great deal depends upon what was in that brain that was injured. There are beaten paths, conditioned reflexes, associative pathways and experiences that are the sole property of the individual involved. Many symptoms or personality difficulties appear merely as expressions of a struggle of the altered personality to cope with defects and demands it can no longer meet. As Goldstein(1) previously pointed out, adaptation depends on the severity of the handicaps and the degree of readjustment possible. Indeed if the defect is severe (for instance, the patient is blind), ultimate expectations are less, and usually the patient manages well. He seems to compensate easily and loses realization of his defect. However, if part functions remain, if he is only mildly hemiparetic or partially deaf, the ultimate adaptation may be more difficult. It may be easier for the totally hemiplegic to adjust to his total loss once and for all than for the partial hemiparetic to make an "on the fence" adjustment.

Once these patients were settled in the ward, and the routine going, they were easy to manage. Their dogged perseverance and seriousness of purpose soon manifested itself. There were few disciplinary problems among this group, in contrast to other groups of wounded patients in the hospital. Minimal complaint was expressed of paralysis, hemianopsia or aphasia. In some men, excessive orderliness became an apparent manifestation of their concrete attitudes.

The frequent admission of men with brain injury soon brought about the realization that something more was in order than routine neurological evaluation, neurosurgical considerations, occasional psychological testing and routine assignment to physiotherapy and occupational therapy. As we saw increasing numbers of these patients, we felt that many of them could be steered from institutional care. However, this would require planned assistance for these men to readjust with wounded brains and personalities. It was our impression that *all* of these men, and not just the aphasic, required special care and effort.

It was soon apparent that a more concerted program would assist greatly in determining and understanding the true state of disability in many men, including those less severely disabled. The bare necessities of a history, neurological examination, EEG tracing and pneumoencephalography often presented a mechanistic summation which left much to be desired. Thus the program to be described became valuable as a means of evaluation of the man and his disability. It was useful for those who had to remain hospitalized for a long time just for physiotherapy, insertion of tantalum plates and observation. It proved of great value among men who wanted to know if they could proceed with advanced education despite brain injury.

Over a period of several months, the following program of evaluation and therapy was developed for men impaired because of brain injury. No portion of this program is new or unique. It represents only an integrated and enthusiastic approach to restore the experience of usefulness, social acceptance and happiness in any individual long ill

and struggling with a residual disturbance of important function. Such a program could be used for any group of patients hospitalized for prolonged care (orthopedics, cardiac, tubercular, paraplegic, blind, psychotic, etc.).

Basic Evaluation

With the admission of each new patient, we set about to find out what had happened to this man and what was the existing pathology. Many answers were supplied by careful neurological history taking and examination. Field medical records were scrutinized for details of how the man was wounded, the extent of damage found, the surgeons' notes and previous examinations. How helpful it was when neurosurgical teams indicated even on crude anatomical drawings where the lesion was and how extensive it was. The patient, too, was plied for historical data. Where was he when he was wounded? What had he been doing? What does he recall of being struck? When did first islands of memory appear? When did amnesia clear up entirely? What symptoms persist? After his chief complaints were described, we found it well to go over a neurological and psychiatric inventory to be sure nothing was forgotten. General medical and certain orthopedic symptoms were also sought. Skull x-rays were examined and when available, the initial films following injury were rechecked. Electroencephalographic tracings were obtained. Where indicated, spinal fluid examinations and pneumoencephalography were performed. Injuries elswhere, which may have been overlooked, were always kept in mind, particularly those to the cervical spine. The possibility of intracranial infection and hematoma posed themselves for consideration in many cases and had to be ruled out. Close cooperation with the neurosurgeon in problems of poorly healed wounds, skull defects, depressed fractures, foreign bodies, infection, suspected bleeding and decubitus ulcers was maintained.

Careful Psychological Testing

This was directed toward obtaining information regarding the adjustment of the individual to his loss. We strived to obtain some tangible level or base line of intellectual functioning. Many cognitive impairments could be tested. These included agnosic-apraxic disturbances, Gestalt perception, the ability to handle abstract concepts, recent memory function, etc.(2, 3). The simplest measure that could be accomplished in each case was administration of a complete standard intelligence test such as the Wechsler-Bellevue scale(3). At times we found it helpful to obtain base lines of simple, practical reading, writing, spelling and arithmetic ability by use of standard grammar school achievement tests(4). Once base lines were established, the patient's present state of deficit could be comprehended and progress measured from this point. The Rorschach tests(2) gave valuable information concerning special intellectual deficits as well as other personality dynamics in operation. Some patients eventually took vocational interest and aptitude tests to assist in re-education.

Psychosomatic Orientation

This is directed toward knowing and understanding the patient who had the injury. Such orientation was fundamental in handling men with brain injury. Personality traits, attitudes and conflicts were important to recognize early as the individual strived to readjust with a wounded brain. Who was this person before he was hurt? What were his military experiences? In what setting was he injured? What were his present worries and concepts about himself? Were there other situational problems, especially at home? What formulations had been given him so far? What were his outlook and tentative plans? Who was this person now, adjusting to these pertinent experiences and intracranial alterations? Often the personality and individual brain involved were more potent factors affecting recovery than the lesion or its extent.

Social service investigation assisted greatly in these matters. Through this we learned much of the patient's previous assets or liabilities, and whether there had been a personality change now evident to others. We learned also to what kind of home situation he would return, and what plans his family had in mind. Were there local resources and

assets in the community which might continue his rehabilitation?

Special Reconditioning and Re-Educational Program

Instead of endeavoring to fit these men into the general hospital reconditioning and re-educational program, we found it best to put the group under the supervision of one man who in turn was supervised by the medical officer. Best qualified for this work was a man who had teaching experience as well as some training in psychology. He had to be sensitive to personality concepts, limitations, interests and attitudes of each patient. He functioned as the master co-ordinator of such things as occupational therapy, physiotherapy, educational movies, exercises, swimming and various instruction. He saw to it that each patient attended on schedule. As an instructor, he taught certain subjects, and assigned patients to other instructors in the hospital for more specialized subjects (typing, piano, Spanish, woodwork, radio, refrigeration, etc.). This man assisted the medical officer greatly in collecting information about each patient and his progress. The subjects taught and goals were practical and not academic. We tried to fit them to each patient and his likely vocational choices. Often they concerned just the fundamentals of reading, writing, spelling and arithmetic. This approach aided materially in an acquaintance with a patient which otherwise would have depended only on psychological test scores.

The Employment Specialist

Every army hospital has an office headed by the separation-classification officer who assists patients in plans for vocation or education. We found the more concerted interest and co-operation of this office valuable. Patients were turned over to this officer as soon as they appeared sufficiently rehabilitated and when their discharge appeared imminent within the next month or two. Non-confidential information obtained by medical examinations, psychological tests, social service investigation, and instruction of the patient were efficiently funneled to this officer. He in turn furnished the medical officer with practical advice concerning specific vocational and educational possibilities for which the patient might be suited. Patients were consistently interested in the practical details concerning employment possibility, job classification, further education, and the like. They enjoyed batteries of tests designed to indicate skills, aptitudes and interests.

Formulation and Explanation to the Patient

These men want to know how they have been injured and what it will mean. Often they have obtained many misconceptions and hearsay which they may not spontaneously bring out. It is well to know what these are, and to ventilate them. Some feel that head injury leads to insanity or brain tumor. Many have already heard that convulsions (or "black-outs" as they often refer to them) may follow injury such as theirs. To many patients, this possibility must be frankly acknowledged, and explanation given as to why these occur. These men can be told that they occur only (as late and persistent problems) in a relatively small percentage of men with injuries such as theirs; usually this phenomenon recurs infrequently, it is only episodic and transient with full recovery; it is usually no indication of impending insanity, deterioration or further paralysis. Optimism is necessary, and nothing must be done to bring about apprehension and preoccupation of things that *might* happen. These patients can be told that, if spells of unconsciousness do occur, there are definite things to be done about them in the way of medicine and surgery. They must know that the medical profession is learning more about the management of these phenomena as investigation proceeds. In general, we find the formulations given by Putnam in his excellent book (5) valuable. We see absolutely no excuse for referring to these occurrences as "epilepsy." Seizures produced by intracranial scars are not indications for invalidism or advice to take it easy and not work. Healthy adjustment to an infrequent, recurrent, brief lapse of consciousness comprises an important portion of the therapy in these men.

These men know also about pneumoencephalography (the "air test," as they refer to it). They fear it. In this procedure are

bound all the folklore and superstition of the spinal puncture, plus the additional trauma of "draining the brain dry" of an important fluid, and then "blowing air into it." As early as possible after admission, the patient should be told that likely he will not need this procedure, and it can be dismissed thus. Where it is needed, this should be announced within 24 hours of its accomplishment and carefully explained in a manner to allay anxiety and misconception.

Headaches, dizziness and anxiety symptoms should be explained physiologically and psychologically to these men. Their importance as indicators of severe brain damage or poor prognosis should be deflated.

An intelligent patient will sometimes inquire, "Why should I struggle to rehabilitate myself, if it will only cut down on my pension?" We have reason to believe that those seriously impaired will not have pension readjustments to worry about, regardless of how well they are employed in the future. To the others, we must frankly state that they will soon come to know that a pension is not everything in life; that as young, aggressive individuals they will find it far more enjoyable working for $120 a month than whiling away time on a pension of $80 a month. It can be pointed out that mature individuals prefer opportunity rather than dependence upon government checks.

By work and action these patients must learn that they are expected to be able to do certain things. Morbid fears, pessimism, hypochondriasis, passive resignation to invalidism or abnormal behavior must not stem from the experience of having been injured in the head. There is usually little need for the patient to know about EEG tracings or pneumoencephalographic findings. These usually represent lurid details which he is not equipped to judge or understand.

The Patient's Relatives

Wives, parents and others are likewise concerned about the nature of the injury and what it means. The attitudes of families can devastate or richly nourish efforts directing the patient's recovery and future. These individuals are as much in need of formulations expressed above as are the patients. When the family could not come to the hospital, we found the Red Cross of great assistance in transmitting concrete, individualized formulations to them. It was best when these things were done as soon after the patient arrived at the hospital as possible, before time permitted misconceptions to develop and set.

Therapeutic Trials at Home

Recovery and stabilization eventually suggest that a change of routine is advisable. We found it valuable to send the patient home for several weeks. This proved helpful in several ways. It permitted his family to get acquainted with him and his handicap. He in turn became acquainted again with his home setting. Plans could then be made in a more practical light and future difficulties anticipated. On return to the hospital social service investigation immediately obtained a report of what transpired while the patient was home. Resulting information was exceedingly helpful in further planning.

Physiotherapy, Exercise and Gymnasium Activity

The medical officer maintained regular check on physiotherapy and exercise activities. Those with paresis or paralysis found the swimming pool a valuable adjunct. With the assistance of the reconditioning department, an athletic assistant was put in charge of each helpless patient in the swimming pool. The entire swimming program was co-ordinated by a physiotherapist. In all of these activities, progressive management and the patient's active participation were sought. At least once a month, a careful objective study of the amount of weakness and spasticity of all involved muscles was tabulated.

Occupational Therapy

This was devised in a special class for the group to aid in retraining of muscle skills, and to give the patient a daily sense of accomplishment. Mental as well as physical stimulation was sought.

Job Therapy

Several weeks or months before discharge, when the patient appeared ready for

it, he was assigned to a part-time or full-time job on the post. Previous arrangements were made with various departments by the man in charge of reconditioning. Many types of work were available, sedentary and ambulatory, in the library, baggage room, stenographic pool, admitting offices, etc. Each job was selected with the man's limitations and needs in mind. It was carefully explained to him why this was done, *i. e.*, not as a stall in his discharge, but as a final test to ascertain whether he would continue to need a lot of doctoring, how his strength and stability were, and if he would continue free of distress under more normal conditions. This was a trial period. Special pass privileges were arranged for men who worked on the post in this manner or other privileges could be awarded occasionally.

Case Conference

Once a week, an hour's conference was held with the man in charge of re-education and reconditioning, the social service worker, the occupational therapist, the physiotherapist, ward nurse, psychologist and separation-classification officer. Here individual case problems of rehabilitation, progress and future plans were discussed. The medical officer learned what everyone was accomplishing and what progress was being made. He then directly advised, instructed and coordinated all of these efforts.

Follow Through

The rehabilitation of these patients must not stop the day they leave the hospital. There is a need to carry therapy and rehabilitation over into civilian life. This man's family, his family doctor, local and state agencies, Veterans' Administration, and industry must know this. We have found that nothing can take the place of a wise, understanding family. A job, however simple, if it does not tax the patient's remaining assets, is exceedingly valuable especially after a period of readjustment as a civilian after discharge.

It is important for the family doctor to continue with a careful understanding of the personality involved, stressing good adjustment to a handicap and avoiding concepts of invalidism. It should be recognized by physician and patient alike that the brain (like other vital systems) provides a margin of safety whereby alteration of some portions may effect little functioning deficiency. It is unwarranted to assume that brain damage must equal disability gram for gram or percent for percent. Adjustment of the individual suffers when evaluation and therapy are based only on EEG abnormalities, pneumoencephalograms or reflex changes.

Conclusion

Merely doing fundamental neurological evaluation and giving neurosurgical consideration, then assigning patients to physiotherapy and reconditioning do not effect understanding or sufficient therapy for men with brain damage. Groping for reintegration, these wounded personalities must be considered as a special group needing stimulation and direction. They and those who work with them must be given healthy, reasonably optimistic conceptions and plans. Feelings of hope, usefulness and of being restored to the community as respected adults must be instilled.

Old concepts of organic dementia and deterioration are not strictly applicable to these men, even those most severely injured. They are young, and their brains are healthy. We are struck by an inherent force of restitution, stabilization and improvement, but we have found that it needs stimulation and direction. The deficits of these men need not as yet be regarded as permanent, static, and least of all progressive. Many possibilities exist for re-education, restoration and healthy adjustment. Although oversimplified and unproven, the theory that there is a reserve of cerebral neurons which can be re-educated is a helpful concept. The human personality is versatile in its ability to adjust with losses and to losses.

We have felt that our efforts were amply rewarded by the progress these men made. Physical strength and agility reappeared as did handwriting, reading, spelling, mood stability, poise and self-confidence. The triplegic walked with a cane; the hemiplegic drove his father's tractor. They felt useful again and could plan now for the next 25 to

50 years. They had an understanding about themselves that was wholesome.

Of 64 severely injured patients (as described), only 4 had to be institutionalized, 3 for severe physical helplessness (triplegias, extensive cerebellar damage) and 1 for intellectual deficiency. The remaining 60 were discharged, ambulatory and confident, directly to their homes.

We do not intend to be carried away by optimism, for we shall never rehabilitate most of these men to where they will be entirely self-sufficient, steadily employed, or "as good a man as before." However, we saw no patient for whom immediate, simple relegation to institutional care was necessary. We saw no case in which such a pessimistic disposition was warranted. We saw no man for whom a great deal could not be done in the way of active restoration and rehabilitation. Such viewpoint, however, has necessitated vigor and healthy optimism directed toward understanding these men as individuals and individuals adjusting to certain losses and experiences. It has necessitated keeping them busy socially, mentally and physically. It has necessitated steering clear of, and fighting, invalidism, apathy, stagnation and neurotic adjustments to a handicap, conditions to which men with head injuries are very susceptible.

We have learned that it means little to save a life, to cover a skull defect, and to give a man veterans' compensation if the adjustment and reintegration of that individual are neglected. The job is only half done if he is merely diagnosed and labeled, routinely assigned to this or that program, sent to physiotherapy and occupational therapy in isolated fashion, and then disposed of as a pathetic product of war to his home or to drab institutional care. The wounds are fresh and the patient young. We must deal with both now and not 2 or 5 years hence. Let us again seriously consider what constitutes maximum benefit of medical care in these cases.

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JAPANESE MILITARY PSYCHIATRY IN KOREA

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These impressions and statements concerning Japanese military psychiatry are based on an interview with Dr. Kijoto Kawaguchi, a thirty-three year old lieutenant in the Japanese medical corps who was born in ill-fated, atom-bombed Hiroshima and lived in Korea for twenty-five years. After graduation from Keijo (Seoul) Imperial Medical School in 1937 he trained in the neuropsychiatric section of the University Hospital for five years. He received no psychoanalytic training. He then established his own private mental hospital for six months until called into the Japanese Army in 1942. Following custom he served as an ordinary soldier equivalent to our American private for eleven months, receiving a basic army indoctrination before he could begin practicing as a neuropsychiatrist.

The Keijo Military Hospital had a maximum capacity of 1500 beds. At the time of this interview in September, 1945 the patients numbered 1100. Soldier patients from the entire vast north and central China fighting fronts, and Korea itself, streamed to the hospital for definitive treatment. The writer's assignment to evacuate all Japanese patients and hospital personnel to Japan enabled him to gather the information for this article.

Neuropsychiatric Section

When the hospital closed there were only 22 patients in the neuropsychiatric section. The normal capacity was 50 beds and a maximum of 120 mentally ill could be cared for adequately.

The physical components of this department would be judged inadequate by American standards. Small, barred windows were set high in the wall of a fourteen by twenty-two foot room housing 8 patients. The others cramped into tiny quarters. Filthy straw mattresses were closely packed side by side around the room, leaving only a small space in the center of the room. The rest of the wood floor and dirty-grey walls were bare, badly in need of fresh painting. The psychiatric examining and treatment room was also used as living quarters for Lt. Kawaguchi. There was no recreation room. Formal occupational therapy or therapists did not exist. An active physical therapy program was carried on, averaging three hours per day for each patient. This consisted of scrubbing, walking, general cleaning and farm work.

Types of Patients

The 22 mentally ill soldiers were diagnostically classified as follows:

Schizophrenia	6
Hebephrenic	5
Catatonic	1
Dementia paralytica	3
Manic-depressive psychoses	3
Manic	1
Depressed	2
Mental defectives	3
Psychoneurosis	7
Hysteria	7

Treatment

In the writer's lengthy discussions on therapy with the Japanese psychiatrist, no new forms of treatment were found to be in use.

1. Electric shock: This mode of therapy was given to all types of patients, with the treatment time varied to suit the patient's condition. In general, excited patients were given two to three treatments daily, while "gentle" patients received two to three shocks weekly. The Japanese officer gave approximately 3000 treatments while serving with the army and 10,000 as a civilian.

Mechanics: The shock machine used by the Japanese is far simpler in appearance and operation than our multi-dialed apparatus. There is no real control of the current given for each treatment. Copper electrodes are set flat into the inner sides of a U-shaped

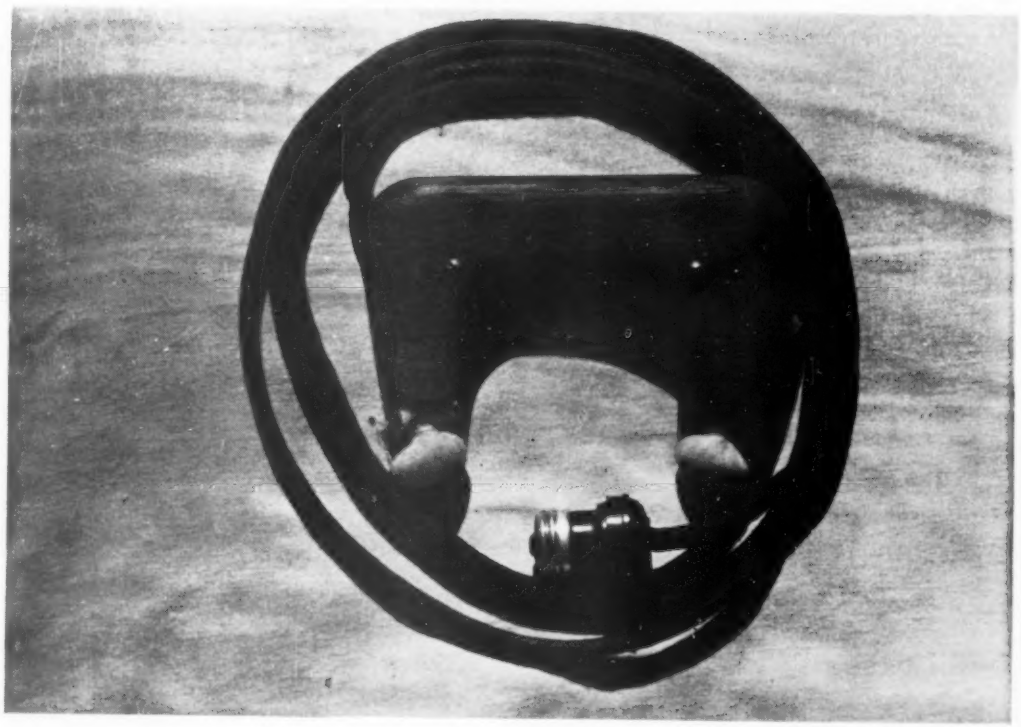

FIG. 1.—Electric shock machine used by Japanese and Korean psychiatrists.

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wood handle and attached to a conducting wire in the center of the handle (Fig. 1). This in turn connects with a wire extending to the nearest electric outlet. Alternating current carried through these outlets in Keijo is estimated to be 100 volts, 300 to 500-mille amperes, and the duration of each treatment is timed with a stop-watch or by the operator counting for two or three seconds. A mouth gag was used during treatment. The tonic, clonic and dyspnoeic phases of grand mal seizures customarily seen during electric shock treatment were described.

Complications: The informant stated that in spite of the apparent crudeness of this machine there had been only two known deaths in Korea. These, not his own patients, occurred in 1942 after post-shock status epilepticus. He personally knew of 2 cases in whom convulsive episodes recurred at monthly periods six to twelve months after completion of a course of electric shock therapy and then, just as spontaneously, ceased. He stated that only 2 of his patients had dislocated jaws during treatment and none had fractures. Routine pre- and post-shock spinal X-rays were not taken. In only 1% of cases was artificial respiration necessary.

Results: Hysterias were given petit mal seizures when possible by reducing the time of the treatment and all other types of patients were given grand mal convulsions. Schizophrenics are usually given ten to sixty treatments. He claimed a complete recovery rate in dementia præcox of 25 to 30% and stated that up to 60-70% showed complete or incomplete remissions. Manic-depressives are given three to fifteen treatments and 50% recover; 70% of depressives recovered completely. Excited dementia paralyticas are treated with five to ten electric shocks before starting fever therapy with malaria or typhoid vaccine.

2. Insulin shock therapy: No insulin had been used since 1941 because it was unobtainable. As he preferred electric shock, this loss was not felt too keenly.

3. Metrazol shock therapy: Its use was discontinued five years ago because it too was considered inferior to electro-therapy.

4. Narco-therapy: Although he did not use sleep or narco-therapy here in Keijo, he knew of its use in Japan. The drug, sulfonal was used there to produce sleep for five- to seven-day periods. Narco synthesis, as used by the United States Army Medical Corps, was new to him.

5. Hypnosis: This psychiatrist had no personal experience with classical hypnosis and stated it was seldom used in the Japanese Army.

6. Hydrotherapy: This well-proved method was rarely used because of the expense in making hot water, and because the number of personnel required was too great to make it worth while.

7. Epileptics were treated with luminal gr. ½ two to three times daily.

Results

Of all the neuropsychiatric patients admitted to this hospital approximately 80% recovered, 15% experienced an incomplete remission and 5% showed no improvement. Those who required more treatment or prolonged hospitalization were evacuated to Japan.

Comments

Although this appraisal of Japanese military psychiatry in Korea is not a complete one, it affords us some definite information on the subject. We can thus compare American and Japanese psychiatric practice and concepts.

It is of interest to learn that Japanese neuropsychiatrists have had to serve almost one year as privates before being commissioned as medical officers and allowed to resume their professional vocation. The cramped quarters and lack of occupational and recreational therapy show that the Japanese have not been greatly impressed by reports indicating the successful use of those therapeutic adjuncts. The absence of paranoids in a group of 6 schizophrenics may allow one to reflect that the individual Japanese may have rarely known the projective mechanisms involved in the development of this psychiatric entity. The absence of forms of psychoneuroses other than hysteria may have some significance.

The use of electric shock three times daily is a rather startling concept. Histologic studies of the cerebral cortex in these human subjects might shed interesting new light

on the pathological changes induced by this treatment. The occurrence in 2 patients of convulsive disorders six to twelve months after completion of a course of electric therapy may be directly attributable to the high rate of daily treatments. This would be considered an unusually rare occurrence in non-epileptic patients treated two to three times per week.

That the economic factor was an important one in deciding treatment was indicated by the reasons given for not using hydrotherapy.

It is of interest to note that in spite of other differences, statistically, the general overall results of treatment seem to be similar to those seen in United States army hospitals.

PREFRONTAL LOBOTOMY

A Preliminary Appraisal of the Behavioral Results[1]

WARD C. HALSTEAD, Ph. D.,[2] HUGH T. CARMICHAEL, M. D.,[3] AND PAUL C. BUCY, M. D.[3]

Prefrontal lobotomy for relief of some forms of psychopathy has passed its first decade. In 1935 Egas Moniz, a Portuguese neurologist, and Almeida Lima, a surgeon, working in cooperation with Sobral Cid, a psychiatrist, undertook the treatment of psychotic patients by surgical interruption of the frontal association pathways in the brain. They performed their first operation on November 12, 1935. The favorable result, with confirmation, was reported immediately in several brief communications(77, 78, 81). A monograph by Moniz, describing the results of this operation in 20 cases, appeared in June of 1936(79). This monograph attracted the attention of Freeman and Watts(25), who performed the first prefrontal lobotomy in this country about three months later on September 14, 1936. Following their favorable report, the method was soon taken up by others. It is probable that nearly 1,000 such operations, with variations, have been performed in this country during the past decade. More than one hundred references to leucotomy or lobotomy, as the operation is now known, are to be found in the literature (see bibliography).

General Results Reported for Prefrontal Lobotomy.—In a monograph on the subject published in 1942, Freeman and Watts(33) summarized their general results for a group of 80 cases, comprised of various types, as follows:

> In our opinion, 63% of the cases have resulted satisfactorily, while in only 14% of the survivors can the results be considered bad, either from the standpoint of a return or persistence of symptoms or from the standpoint of antisocial behavior that makes the individual a difficult problem in his environment (p. 287).

Ziegler(114), in 1943, surveyed the results to date for 618 lobotomies from one Canadian and from 17 American centers. The results of this survey, without reference to the preoperative psychopathy, are shown in Table I.

TABLE I

General Results of Prefrontal Lobotomy (N = 618)

Data Taken From Zeigler(114)

	Cases	Percentage
Clinical Status		
Recovery	215	34.8
Markedly improved	194	31.4
Slightly improved	109	17.6
Unchanged	62	10.0
Worse	8	1.3
Death (operative)	12	1.9
Death (subsequent to operation including 2 by suicide)	18	2.9
Occupational Status		
Working part or full-time	251	42.7
Discharged but unable to work	60	10.2
Hospitalized	277	47.1
Unknown	30	...

Examination of these reported results, essentially as classified by Ziegler, reveals an outlook no less optimistic than that of Freeman and Watts. Thus, 66.2% of the cases are reported as showing marked improvement to social recovery; 83.8% slight or better improvement; 10% unchanged; still less favorable results, 6.2%. Unfortunately, aside from their value as vital statistics, it is impossible to assess the validity of these findings. At no point have there been other than superficial attempts made *to standardize* the criteria for the pre-operative and post-operative clinical status of the patients. Not a single patient has been adequately studied. For a moral and social responsibility to do this, there has been

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substituted a phenomenal array of case statistics. Unfortunately, the pyramiding of *unknowns* is scarcely a pathway to knowledge.

This is no less true in those few instances where clinical opinion has been supplemented by psychometric devices (cf. 33, 51, 52, 57, 59, 88, 97, 100). In no instance has the psychological test or battery of tests employed ever been shown to be sensitive for frontal lobe functions. In several instances just the opposite has been true. We may use a particular test as an illustration. Many other tests employed are either standardized in terms of it or are highly correlated with it.

For the Stanford-Binet test, widely used as a measure of *psychometric* intelligence, the range of post-operative I. Q.'s for unilateral and bilateral frontal lobectomies reported in the literature is from 54 to 152 with a mean value of 108. For cases examined pre-operatively as well, an average drop of one point in I. Q. has been found post-operatively, the range being from a loss of 14 points to a gain of 11 points. Since bilateral (and possibly even unilateral) frontal lobectomy represents more extensive ablation of brain tissue than lobotomy, it would appear unlikely that a test known to be insensitive to the former would prove to be sensitive to the latter. It might be commented in this regard that a physicist who purported to measure micro-volts with a volt-meter would scarcely be taken seriously.

Present Investigation

Biological Intelligence.—Is there a kind of intelligence that is of fundamental importance to the organism but which is different from that reflected by standardized psychometric tests? Commonplace clinical experience, as well as other lines of evidence, suggests that there is. Clinicians are generally familiar with the discrepancy commonly encountered where the measured I. Q. of a patient may be high yet his usable intelligence, *i. e.*, his capacity for adaptive behavior, may be disproportionately low (44). Ackerly (1), and soon after him Brickner (7), were among the first to report examples of this in patients with extensive bilateral lesions of the frontal lobes. Both of these men were reluctant to conclude that the adaptive capacities of their patients were unimpaired in spite of the fact that the measured I. Q's. were within normal limits. One technical reason for this clinical paradox is that the I. Q. reflects special abilities of the individual. In trigger situations presented in the psychometric test, these abilities are touched off or tapped sufficiently to yield a spuriously high index of the adaptive capacities of the individual. This phenomenon is equally to be noted in the performances of normal individuals under biological stresses imposed by such agents as drugs, altitude anoxia, and brain concussion (the post-traumatic syndrome).

Psychiatry, and for that matter the whole field of biology, has long felt the need for a conception of intelligence more closely related to the clinically observed capacities of the individual for general adaptive behavior. The need is for a concept understandable in biological terms, in brief, a concept of *biological intelligence*. Several decades ago, Freud proposed such a concept which he termed the ego. He assigned to it the *control of motility* in various spheres of the individual and likened it to "a man on horseback," who controls the superior energies of the horse with his own (38).

The concept of a controlling ego or intelligence has most recently been explicitly set forth in a timely monograph by Alexander and his associates (2). They state:

> Every neurosis and every psychosis represents *a failure of the ego in performing its function.* . . . . Psychotherapy . . . . aims to restore this ability to the ego by psychological means (2, p. viii).

But while these authors thus designate the ego as the prime target of psychotherapy, they fail to specify its functions in any but the most global of terms. With the target thus undelineated, it perhaps is not surprising that the effective mechanisms in recovery under psychotherapy have remained obscure.

Can biological intelligence, the ego functions of the individual, be measured by objective means? The answer, fortunately, is an affirmative one. Over the past several years, one of us (W.C.H.) has developed an objective scale for this purpose.

Impairment Index.—By detailed study of carefully selected patients with circumscribed brain lesions, it has been possible to develop

a battery of quantitative indicators which is useful in differentiating such cases from normal individuals. One of the ten different indicators in this battery which may serve here as an example, consists of a category or grouping test(43, 44). In this test the subject is required to grasp or comprehend essential similarities or differences in categories of test figures, presented in a multiple-choice situation by means of a special projection apparatus. The instructions for this test are simple and the scoring is completely objective. The nine other tests are similarly objective. Each has similarly been found to differentiate brain injured patients. Accordingly, these ten indicators have been made the basis for an impairment index of biological intelligence as altered by impairment of brain functions. The scale for the impairment index ranges from 0.0 to 1.0. It may be thought of as a statement of probabilities out of ten chances (tests) that the individual in question has performed like patients with known brain damage. Thus, an impairment index of 0.0 for a normal individual, means that on none of the tests were his scores compatible with brain impairment. On the other hand, an index of 1.0 made by an individual means that scores on all ten tests were similar to those made by patients with known brain injury. On this scale, Dr. Ackerly's well-known bilateral frontal lobe case was found to have an impairment index of 0.9, or near maximal impairment of biological intelligence, in contrast with her I. Q. which falls within the limits of the average normal(1). The scale has proved to be useful in localizing tumors in the frontal lobes of the brain when the electroencephalogram, for example, has proved ineffective. It has proved to be reliable in differentiating unilateral and bilateral frontal lobectomies from surgical lesions in other parts of the brain and from normal control individuals. That it performs this task is demonstrated by an exhibit shown at this meeting (W.C.H.) and in publications which are in press(45, 46). The relative sensitivity of the impairment index for frontal lobe injury is indicated by the fact that the average impairment index for unilateral and bilateral frontal lobectomies is about *six* times that for the normal control group and about *three* times that for non-frontal lobectomies. On a scale of 0.0 to 1.0, the control group and the frontal lobectomies are separated perfectly by an impairment index value of 0.5. No frontal lobectomy has an index less than 0.5.

With a scale calibrated for frontal lobe damage available, and in view of the growing significance of the problem, it seemed desirable to apply the scale in assessing the neuropsychological effects of frontal lobotomy. Accordingly, in this preliminary investigation, this scale, along with a larger battery of behavioral indicators and with psychiatric studies, has been applied in studying 8 cases before and after lobotomy and one case after this operation. Summaries of the medical and social histories for these individuals are given at the end of this paper.

Quantitative Results

The impairment index scores obtained pre-operatively (gray cross-hatching) and post-operatively (solid black) in these cases are shown as a histogram in Fig. 1.

It may be noted that there is no evidence of a reliable or consistent shift in the impairment index which may be attributed to lobotomy. In only one instance (M.C.) did a shift of more than one point upward on the impairment index scale occur following the operation. The pre-operative index for M.R. is unknown. Each patient was examined not less than 42 nor more than 90 days after the operation. In some instances, the patient has been followed by serial examinations over a period of about three years. Little change in the impairment index has been found. Thus, in contrast with the findings for frontal lobectomies, biological intelligence, as reflected by an impairment index, does not appear to be altered significantly by prefrontal lobotomy. A possible reason for this result lies in the nature of the impairment index. Each point on the scale stands for performance on an indicator which has been found to reflect brain damage in patients with known localized lesion(46). The scale thus reflects probabilities in chances out of ten (points) that the individual subject has performed like individuals with known brain damage. No frontal lobectomy has been found to score below 0.5

on this scale. Examination of the pre-operative index values for these cases suggests that biological intelligence was impaired *prior to operation* and that lobotomy neither relieved this impairment nor consistently produced a greater degree.

The findings point to significant facts concerning localization of function. Prefrontal lobotomy is primarily a sub-cortical operation and, apparently leaves the cytoarchitectural areas of the cortex essentially undisturbed(33). In one of our cases (F.W.), and in three others to a lesser extent, the pre- and post-operative index values are significantly less than those yielded by frontal lobectomy wherein the cortex is removed along with the sub-cortical white matter. This would seem to indicate that the functions reflected in the impairment index are maximally represented or localized in the cortex of the frontal lobes(46).

To supplement the impairment index and the psychiatric interviews, the Minnesota Multiphasic Personality Inventory was employed. The pre-operative (gray cross-hatching) and post-operative (solid black) results are shown as a histogram in Fig. 2.

It may be noted that no consistent picture emerges for this indicator. There is a suggestion of improved personal status following the operation in the performances of R.C., of possible re-alignment or shift in the character of the psychopathy in I.E., M.C., and M.W. and of little or no change in R.G., N.G., A.L., and F.W.

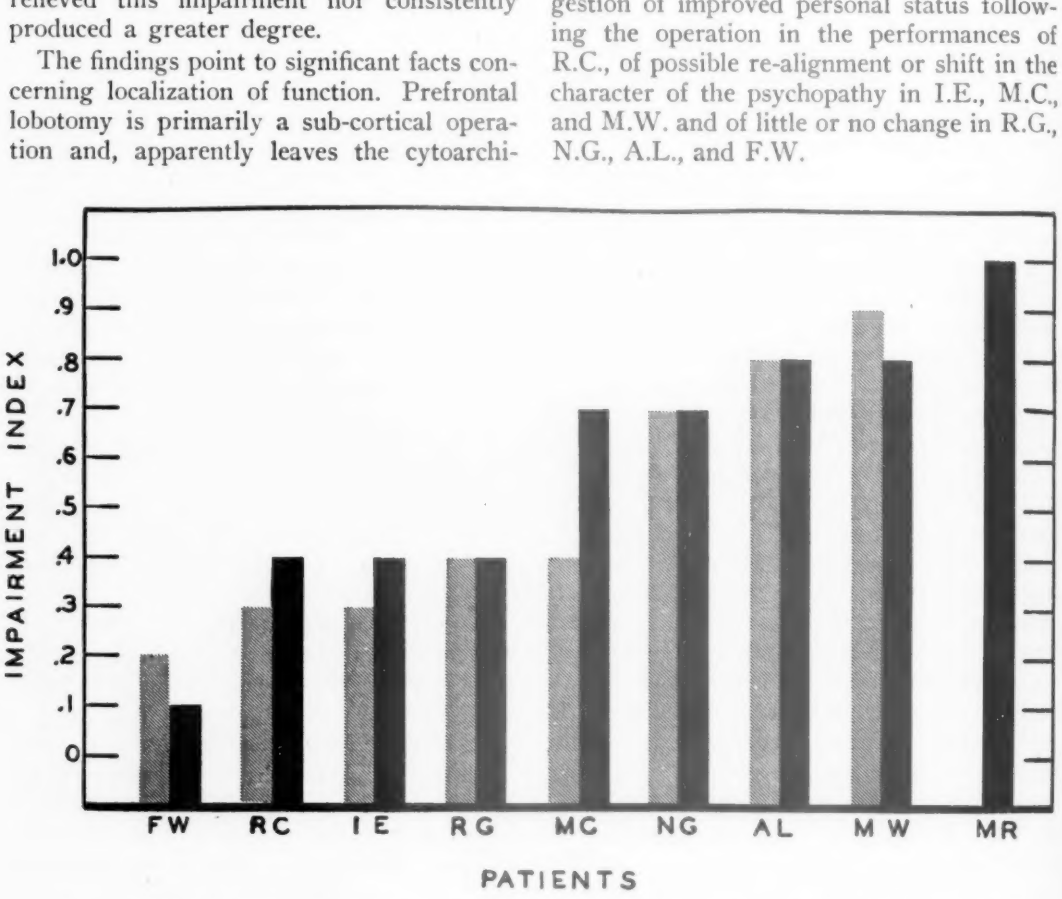

FIG. 1.—Showing pre-operative (gray cross-hatching) and post-operative (solid black) scores on Halstead impairment index in lobotomy patients.

SUMMARY AND CONCLUSIONS

In a preliminary investigation, an impairment index scale developed by one of us (W.C.H.) for reflecting impairment of biological intelligence has been applied to 8 carefully selected individuals before and after prefrontal lobotomy and to another individual following lobotomy. Several of these cases were found to exhibit an impairment of biological intelligence prior to lobotomy. This operation did not consistently alter the degree of impairment manifested quantitatively in contrast with high impairment scores obtained for frontal lobectomies. This would seem to point to the cortex of the

frontal lobes as the region of the brain in which the functions reflected by the impairment index are maximally represented or localized.

It is concluded that:

1. Impaired biological intelligence, as encountered in some forms of psychopathy, is not relieved by the operation known as prefrontal lobotomy.

2. Lobotomy may not increase the degree of impairment of *this* function.

3. Little is known concerning the behavioral effects of prefrontal lobotomy.

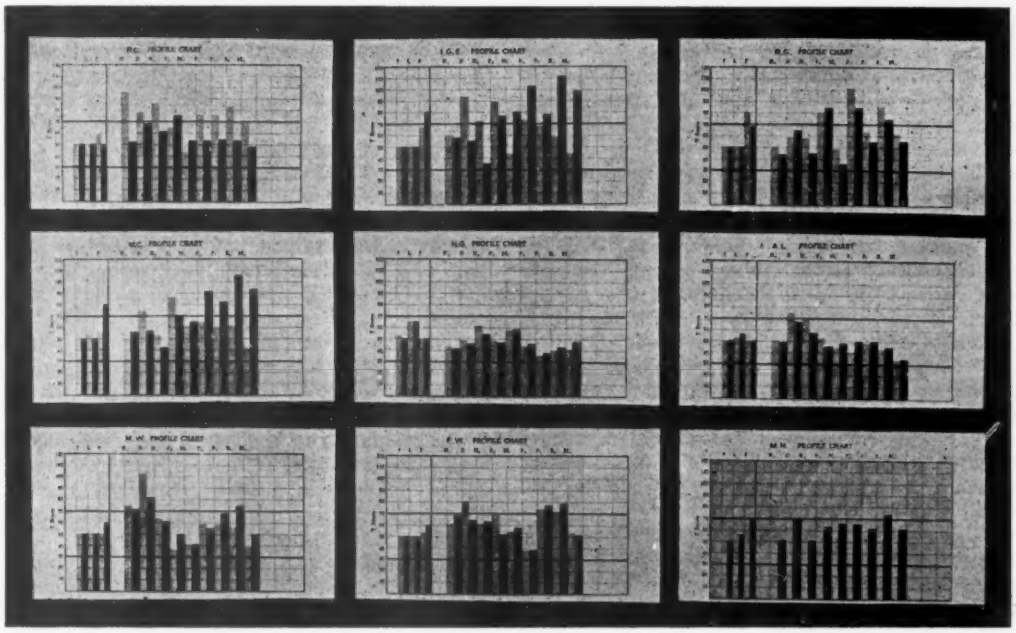

FIG. 2.—Showing pre-operative (gray) and post-operative (black) scores on the Minnesota Multiphasic Personality Inventory in lobotomy patients. Scores above 70 regarded as abnormal.

MEDICAL HISTORIES

R. C., a 33-year-old, married woman was admitted to the psychiatric division of the Illinois Neuropsychiatric Institute (INI) November 3, 1943, complaining that for six months she had had obsessive thoughts and fears of hitting someone, hurting her daughter, killing her husband, committing suicide, and of screaming. In 1941, she had received electroshock and insulin treatments with apparent recovery from similar complaints. At that time, she attributed her illness to two miscarriages between the births of her daughters in 1938 and 1941 and to her husband's heavy drinking and threatening behavior when drunk. On admission to INI, she was quiet, friendly and cooperative, discussed her illness readily, complained of numerous body aches and pains, and stated that she felt she could never get well because she had seen a paternal aunt in the state hospital many years before. Physical examination and laboratory studies revealed a few positive findings, none of which was of serious import.

Bilateral prefrontal lobotomy was performed February 4, 1944 by Dr. Paul C. Bucy. Immediately following the operation, she seemed somewhat passive, rather indifferent, was incontinent of urine, and no longer complained of her obsessive fears or of bodily aches and pains. This clinical picture persisted until about one month after operation, when following successful treatment of an abscess in the upper jaw following the extraction of an abscessed tooth and treatment with sulfathiazole, she became more alert and active, said she never felt so well and that though she still had thoughts of striking people, especially after menstrual periods, these were not as strong or frequent as before. She was discharged March 30, 1944.

When she was again seen on September 27, 1945, she reported that she had been well following her discharge until two months previously when, after birth of a baby boy, her obsessive thoughts of hitting someone returned at times. She also had developed fatigue which she attributed to work involved in caring for a new baby, but said she had learned to express her resentments more readily and without guilt, no longer was so concerned about her physical state, but that she still cleaned house more often than was needed, and still had to do things in a hurry. Her husband confirmed these

statements. When last seen, January 29, 1946, she complained of headaches, cardiac palpitation, dizziness, nightmares, return of her obsessive thoughts of harming people, and quarrels with her husband.

Diagnostic impression: obsessive-compulsive state with depressive and hypochondriacal trends.

I. E. G., a 40-year-old, single woman was admitted to the neurological division of INI March 17, 1944 by referral from a state hospital where she had been voluntarily committed since 1941. At 20 years of age she was ill for several months during which time she manifested a compulsion to wash, was unable to concentrate, and cried a great deal. She was able to return to college and graduated at the age of 22. Following her father's death in 1932, she sought psychotherapy but developed more symptoms such as eating one meal daily at midnight, sleeping most of the day, and refusing to touch money and to sleep on sheets. From 1938 on, she had not worked. During 1938 she spent several weeks at a private sanitarium. For three years before admission to a state hospital, she lived alone in a big house and was depressed and spent most of her time washing. While in the state hospital, her washing and bathing compulsions occupied more and more of her waking hours. She developed "spastic colitis," refused to eat hospital food, resisted attempts to leave the hospital, and showed increasing tension and anxiety. In December, 1943 a course of electroshock treatments produced temporary relief from anxiety, and the colitis, but the washing compulsion continued. At the time of her admission to INI her physical state was good except for undernourishment and a mild degree of edema of her ankles, presumably due to nutritional deficiency as a consequence of her self-imposed "colitis diet."

Bilateral prefrontal lobotomy was performed May 4, 1944 by Dr. Paul C. Bucy. Two weeks later she was transferred to the psychiatric division of INI. At that time she suffered from urinary incontinence, spent many hours daily in the bathroom bathing and washing herself, was slow in speech and action, and quite passive in her contacts with others. One month after lobotomy the anxiety and tension were less, and the washing compulsions not so pronounced although she insisted she still felt dirty. During the latter part of June, 1944, she, for the first time, was willing to consider not returning to the state hospital, spent much less time in the bathroom, was no longer incontinent. This improvement continued. She began to take considerable care and pride in her appearance, left the hospital on visits with relatives, and felt well enough to look for a job outside the hospital. Just before her discharge, September 10, 1944, she had secured a job to which she had difficulty in adjustment. She worked for six months, from December, 1944 to May, 1945, handling small instruments on an assembly line in a war plant at $60 a week. From June to October, 1945, she worked as a machine operator at another plant when she was asked to leave and advised to seek medical care since she had been staying away 6-7 days a month during her menstrual periods. When she was seen, October 19, 1945, she reported the above and in addition said that following the receipt of some insurance money after her mother's death in March, 1945, she married a man she had known as a fellow patient in a state hospital, but that her married life had not been happy and that she had separated from her husband, October 14, 1945. However, she reported that she was much better than before the lobotomy and before her discharge from the hospital, that she had no urinary incontinence, and that she could bathe in half an hour; but that she had not experienced orgasm in sexual relations with her husband. When last seen, January 16, 1946, no essential difference was recorded in her behavior.

Diagnostic impression: obsessive-compulsive state.

R. G., a 29-year-old married woman was first seen in the psychiatric out-patient clinic, October 27, 1944 complaining of having to wash her hands and other things over and over, having to go back several times to see if she had turned off water, gas and lights, and felt unsure of herself. She dated the onset of these complaints to November, 1943 shortly after delivery. They had increased to the point where she was unable to care for her house or her child and had led to difficulties with her husband. She was admitted to the psychiatric division of INI November 13, 1944 for further study and treatment. Physical examination and laboratory studies revealed no positive findings of serious import for her present illness. Little or no improvement was noted in her symptoms during this hospitalization which lasted until December 24, 1944. She was readmitted January 22, 1945.

On March 6, 1945 a bilateral prefrontal lobotomy was performed by Dr. Paul C. Bucy. In the week following operation, she was irritable, at times profane, demanded much attention, laughed overmuch and in a silly fashion, but did not complain about her compulsions and fears and did not manifest the over-frequent handwashing. Thereafter for the next few weeks she showed lack of initiative, disinterest in activities or in other patients, had no confidence in herself, and insisted that she was just the same although her compulsive behavior regarding bathing and toilet habits became much less marked. On trial visits at home and after her discharge, April 12, 1945, she was unable to get herself started at housework or cooking and was reported by her husband to be irritable. Up to July, 1945, she apparently improved and became able to look after her house and her child although she had some difficulty in resisting impulses to wash her hands and to urinate frequently and was unable to lock the door without obsessive doubts. She also got along better with her husband and was pleased with her improvement. When last seen, January 10, 1945, her condition was essentially unchanged from that noted in July, 1945.

Diagnostic impression: obsessive-compulsive state.

M. C., a 60-year-old divorced woman was first seen in the psychiatric out-patient clinic, October 10, 1940 complaining of fears of dirt, having to wash her hands repeatedly and frequent crying spells. Apparently she developed fears of dust

shortly after her marriage 35 years before and became so obsessive in her housecleaning that it occasioned quarrels with her husband. She finally left him in 1917 when her youngest child was 4 years old, but did not secure a divorce until 1941. She lived at her parents' home and worked part time for many years thereafter until her mother died in 1936. Following the birth of her third child in 1913, she suffered a laceration of the perineum. A recto-vaginal fistula developed following a pelvic operation of some kind and several unsuccessful attempts were made for repair of this fistula. After the fifth attempt, she developed incontinence of feces. For the 22 years following, she felt that her hands were dirty and her body filthy with feces because she could not control her bowels, and therefore she washed her hands frequently. She spent three months in a state hospital during 1940. Her fears of soiling and excessive handwashing occurred after another operation for repair of fistula in February, 1941. A still further exacerbation of symptoms occurred in the fall of 1942 in connection with a property settlement in connection with her divorce; and in the fall of 1943 when she sustained a fracture of the right lower leg and spent 4 months in the hospital. She was admitted to the psychiatric division of INI, January 18, 1945 at which time her obsessive-compulsive symptoms were very much in evidence. Physical and laboratory studies revealed the following positive findings: blood pressure 178/110; markedly relaxed rectal sphincter, but no evidence of recto-vaginal fistula; ventral abdominal hernia; decreased hearing, particularly in the right side; arcus senilis; systolic murmur at apex and aortic areas.

Bilateral prefrontal lobotomy was performed March 6, 1945 by Dr. Paul C. Bucy. During the week following the operation she was slightly disoriented as to time and place, was quiet and relaxed, made no complaints, said she felt clean, and expressed no desire to scrub her hands. Two weeks after the operation, she was alert, well oriented, pleasant, was interested in things, had no anxiety about soiling herself, and did not seem to be compelled to wash her hands. One month after prefrontal lobotomy, she developed pain and tenderness in her ventral hernia. Herniorraphy was performed under spinal anesthesia with an uneventful post-operative course. At the time of her discharge, May 10, 1945, her hands and arms had lost their reddened appearance. She obtained a position as assistant cook in an orphanage at a small salary with maintenance and when last seen, October 6, 1945 had held this job for four months. At that time she was no longer worried about her relaxed rectal sphincter, felt that the prefrontal lobotomy had done a lot of good but was very vague about the diminution in her handwashing compulsion.

Diagnostic impression: obsessive-compulsive state.

N. G., a 51-year-old single woman was first seen in the otolaryngology out-patient clinic in October, 1941, complaining of a pain in her throat which she said was due to swallowing a fishbone. No foreign body was found on examination, and she was referred to the department of surgery for repair of bilateral inguinal herniae. Operation was performed November 10, 1941, followed by an uneventful post-operative course. On April 20, 1943 she was seen in the psychiatric out-patient clinic with complaints of "nervousness," weeping, fears of germs, of harming others, and of being alone. The fears had begun 10 years previously and were accompanied by excessive handwashing, had become accentuated after herniorraphy in 1941, and did not yield to treatment with barbiturates, bromides, benzedrine, and 12 electroshocks. She was admitted to the psychiatric division of INI March 8, 1944 at which time physical examination and laboratory studies revealed essentially normal findings except for a few minor deviations and abnormally fast waves on electroencephalogram, and an I.Q. of 81 with a mental age of 11 years, 10 months, on the Otis Intermediate Test.

Bilateral prefrontal lobotomy was performed May 5, 1944, by Dr. Paul C. Bucy, but section was not made in the left inferior quadrant. In the early post-operative period, she said she no longer feared germs but complained of being worried, expressed some guilt feelings although she seemed less tense and anxious than before and manifested no ritualistic behavior. After discharge June 27, 1944 she was admitted as a voluntary patient to a state hospital in September, 1944, but remained there for 3 days only. When seen in November, 1945, virtually all her symptoms had returned to such a degree that she was unable to leave her home. Following the death of her mother in January, 1946, it was difficult to care for her at home because of her bizarre behavior, uncooperativeness and suicidal threats. She was taken to Cook County Psychopathic Hospital where she was found to be without psychosis and was released to her family. She refused to consider voluntary commitment to a state hospital but returned to the psychiatric out-patient clinic where, when she was last seen in March, 1946, the impression was that her condition remained essentially unchanged.

Diagnostic impression: obsessive-compulsive state.

A. L., a 38-year-old, married man entered the psychiatric division of INI March 23, 1944. His illness was said to date back to October, 1942 when he had a spontaneous subarachnoid hemorrhage following which he experienced various sensations in his head and scalp which he interpreted as the "brain being stuck to something" and as "something moving in the brain." A neurological examination in October, 1943 revealed only the following positive findings: slight flattening of the left side of the face and a slight hesitation in distinguishing between his right and left sides. These complaints were considered to be psychoneurotic. He was referred to a psychiatrist for psychotherapy. It was the psychiatrist's opinion that this was not the treatment of choice in view of the defect from the actual brain damage he had suffered for which he was unable to compensate in everyday performance due to his limited capacities in general endowment and personality makeup. Electroshock or prefrontal lobotomy was contemplated for further treatment. Before arrangements for these could be made, he

became acutely psychotic, heard voices telling him to hurt his baby, kill his wife, kill himself; ate little, slept poorly and threatened suicide. He voluntarily entered Cook County Psychopathic Hospital for help in controlling his fears and anxieties. On admission to INI his mental status was much improved and he interpreted the voices he had heard as "my thoughts becoming audible to me." Physical examination and laboratory studies were essentially negative except for findings noted previously.

Bilateral prefrontal lobotomy was performed May 2, 1944 by Dr. Paul C. Bucy. Immediately following operation he was confused as to time, misidentified fellow patients and an intern, and seemed anxious about what would happen to him. A little later he seemed to be less tense and even stated that the movements in his head had lessened and that his queer ideas were gone. From this time on until his discharge, June 17, 1944, he was somewhat uninhibited in a flirtatious manner, more happy and cheerful, no longer obsessed by fears of harming his child, was irritable about being kept in the hospital, and wanted to return to his job. He was followed in the psychiatric out-patient clinic thereafter until October 12, 1945. His course was a variable one. At first he seemed happier in general; then he became fatigued and slept poorly, followed by a return of the obsessive thinking about his head sensations, and later still became depressed and discouraged, was said to be inconsiderate of his wife and children, said that things were changing, and complained not only of sensations in his head but also in his face and back. He seemed preoccupied with his bodily functioning and seemed to get confused and excited when asked questions. Neurological examination in September, 1945, was essentially negative.

Diagnostic impression: psychotic episode due to disturbance of circulation (subarachnoid hemorrhage) with an obsessive-compulsive state.

M. W., a 56-year-old unmarried woman was admitted to the neurosurgical service of the University of Chicago Clinics July 24, 1943 complaining that during the preceding two years she had had a dull, aching pain in her neck and left shoulder and in a phantom of the left arm. The arm had been amputated in June, 1941, but the pain persisted in the phantom limb and two chordotomies had given only temporary relief. She had had a radical left mastectomy for a malignant growth 14 years previously and 7 years later, a non-painful, malignant ulcer was removed from the left axilla. Following the second chordotomy, she had visual and auditory hallucinations for a period of 3 weeks. She had sudden, periodic attacks of severe pain in the neck and phantom left arm, radiating to the left leg and foot, lasting for 10 minutes to an hour or more and unrelieved by any medication. Physical examination and laboratory findings were otherwise essentially negative. The intelligence quotient on the Stanford-Binet Form L was 130.

Bilateral prefrontal lobotomy was performed October 12, 1943 by Dr. A. Earl Walker. At first she had seemed to be somewhat improved but by the end of a week, the attacks of pain were as severe as ever. This condition persisted following discharge from the hospital December 19, 1943 until her death at home in January, 1945. Cause of death was attributed by the family physician to a recurrence of the malignancy in the "mediastinal region." No autopsy was performed.

Diagnostic impression: intractable pain with phantom limb.

F. W., a 27-year-old, single man was first seen in the psychiatric out-patient clinic October 27, 1939, when he complained of feelings of inadequacy, fear of homosexuality, depression, and loss of all religious inclinations. He dated the onset of his illness to the age of 15 years when he thought he had acquired syphilis. At that time he was relieved by reassurance from a physician about masturbation and remained relatively well until one year before this interview. Then he developed his present complaints following the commitment of his immediately older brother to a state hospital. He was seen in 3 interviews only and did not return to the clinic until July, 1940, at which time voluntary commitment to a state hospital was recommended. He entered the state hospital on two occasions from August 13 to October 4, 1940, and October 18 to December 8, 1940, but showed no improvement. Thereafter he continued to live at home and tried several occupations but was unable to hold a job. He was admitted to the psychiatric division of INI August 10, 1943 with essentially the same complaints as in October, 1939. Physical examination and laboratory studies revealed as positive findings a sinus arrhythmia and a mitral systolic murmur.

Bilateral prefrontal lobotomy was performed September 27, 1944 by Dr. Percival Bailey. Immediately following operation he seemed tense and self-critical. He remained somewhat somnolent for some days after this, but his tension was less and he admitted that he was feeling much happier. Ten days after lobotomy, he said he felt perfectly happy for the first time since he could remember, but by October 13, 1943, he began to complain of tension again, said he could not make up his mind about anything although he admitted he had less fear of homosexuality than he had before. Upon his discharge from the hospital November 17, 1043, he was apprehensive about what work he could perform. When he was next seen October 26, 1945, he reported that he had 19 or 20 jobs since his discharge, but that he quit most of them because he felt inadequate and inferior. For one period he attended night high school for one term, but although he made good marks, he did not continue his studies. One time he managed to save $100 but was disappointed that he did not reach his goal of $200. He was depressed at this interview and needed much encouragement, but did admit that he was much better than he was before lobotomy. When last seen, April 30, 1946, he complained of becoming more irritable and restless and of obsessive thoughts of suicide and of killing his mother, but seemed to feel much relieved after discussing his feelings.

Diagnostic impression: mixed psychoneurosis with anxiety, tension, inadequacy feelings, obsessive fears and hypochondriacal trends.

M. R., a 36-year-old, married man was admitted to the psychiatric division of INI October 16, 1942. He stated that at the age of 17 years, he was struck a severe blow on the jaw in boxing, that he thereafter suffered pain in the left side of his face for which he received much treatment, including surgical procedures on the left maxillary antrum. He had worried constantly about this matter. At 22 he became depressed and made a suicidal attempt. At 23 he had a psychotic episode and spent some time in a sanitarium. He was reported to have been "overly clean," to have washed his hands as often as 40 times daily, and to have been obsessively preoccupied about his physical state. During 1939 and 1940 he expressed feelings of futility, hopelessness and disinterest in his work as an artist and had many somatic complaints. In 1941-42 he received several courses of electroshock therapy and a course of insulin shock therapy with only temporary improvement. Obsessive fears of killing others or himself developed with marked hypochondriacal trends. In September, 1942 he made a suicidal attempt with phenobarbital. It was following his recovery from this that he was admitted to INI. In November, 1942 he went on a week-end pass and made an unsuccessful homicidal attack on a friend and then tried to kill himself.

Bilateral prefrontal lobotomy was performed November 12, 1942 by Dr. Percival Bailey. He was stuporous for 48 hours following operation, then became generally happy and pleasant, said that things didn't come into his mind as much as before, and manifested a somewhat silly grin at inappropriate times. Two weeks after the operation, his affective responses were more appropriate, but he was easily distracted by slight stimuli and was unable to focus attention readily on one subject. Thereafter, for the next two weeks, he exhibited some euphoria, punned a great deal and grinned readily. This period was followed by an exhibition of resentment towards attendants and other patients, refusal to participate in ward activities, and masturbation in the presence of others. Six weeks after the operation he controlled his resentment and sexual urges better, but continued to be critical of others and to reprimand them frequently for misconduct. In January, 1943, he seemed to be more aware of his environment, discussed plans for the future but appeared to have some slight impairment for recent memory, was evasive in answers to questions, and still insisted that all his difficulties could have been avoided had he not received the blow on his jaw at the age of 17 years. He was discharged January 20, 1943. He was seen twice weekly in the psychiatric out-patient clinic for the three months following discharge. He secured a job in a war plant in March, 1943 and when last seen, October 12, 1945, reported that he had worked for two years at different war plants, had held 3 jobs for 9, 10 and 3 months respectively, had earned as much as $100 weekly, found none of his jobs difficult, had lost some of them on the matter of principle, and that he had recently quit to resume his work as an artist. At this same time he was no longer concerned about the pain in his face; people no longer irritated him; he had lost his anxiety; and his relations with his wife were good. On the whole, he was considerably improved as compared with his condition prior to and immediately following the lobotomy.

Diagnostic impression: psychotic episodes with schizophrenic and depressive features; obsessive-compulsive and hypochondriacal state.

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TRANSITORY SCHIZOPHRENIAS PRODUCED BY BROMIDE INTOXICATION

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Introduction

Bromide intoxication produces a variety of psychiatric syndromes, two of which have been known for years: (1) the so-called *simple bromide intoxication,* marked by dullness and mental sluggishness, with good orientation and without delusions or hallucinations; and (2) *delirium,* marked by disorientation, thinking disturbances, mood disturbances (usually fear), delusions, hallucinations and restlessness. These two syndromes are no longer regarded as curiosities. A third syndrome, *hallucinosis,* is less well known; it is marked by hallucinations, but in a setting of clearness, with little or no disorientation (bromide hallucinosis being to bromide delirium what alcoholic hallucinosis is to alcoholic delirium).

A fourth syndrome has occurred in a study of a large series of bromide psychoses, and the object of this paper is to describe it. It is remarkable for its resemblance to schizophrenia, a resemblance so close that physicians who are not "bromide conscious" are apt to diagnose it as "ordinary" schizophrenia. Indeed it differs from "ordinary" schizophrenia only in that it supervenes during bromide intoxication and clears up when the intoxication subsides or fairly soon after. The condition, which hereafter for the sake of brevity will be referred to as bromide schizophrenia, differs from bromide *delirium* in two chief respects. (1) In bromide schizophrenia (provided there is no delirious admixture) orientation is intact. (2) In bromide schizophrenia the patient's delusions and hallucinations possess a characteristic schizophrenic stamp not found in the deliria of non-schizoid persons. These and other differences will be discussed in detail below.

Thirteen cases form the basis of this report. They are summarized in Table II.

Description of Bromide Schizophrenia

The patient (all thirteen were women) usually possesses a schizoid personality, with evidence of emotional immaturity. The physique is usually of the asthenic or dysplastic, but sometimes of the pyknic, type. Fatigue, nervous strain and similar symptoms cause her to take bromide, and as intoxication develops she loses energy and becomes sluggish and forgetful. Presently she begins to imagine things and in a few weeks reaches the hospital.

Mental examination shows a listless woman who is reticent, suspicious and inaccessible. One patient asked, "Am I going to get a square deal?" and insisted she would not talk unless her lawyer was present. Hallucinations and delusions dominate the picture.

The *hallucinations* may be in any or in all spheres. Voices taunt the patient, call her vile names and proclaim her secrets. One voice said, "Susie C. (patient) ain't nothing but a streetwalker. She's had two or three husbands and I don't know how many babies. She ain't married to Henry C. (husband). She got to stay in prison the rest of her life. *Kill* her! *Kill* her!" Several patients heard people talking about them over the radio. In one case a voice seemed to come from below and the patient concluded that a radio announcer "has thrown his voice into the cellar." She believed there was a telephone concealed in the floor. People can read the patient's mind, and she hears her thoughts echoed. One patient said that when she read her Bible, other women on the ward opened their Bibles to the same verse and read aloud the verse she was reading to herself. Patients see snakes, roaches, bedbugs and lions, and one said that during the night she had seen strange men, one of them a Japanese, in her room. Angels convey messages by means of words printed on the wall. One patient saw particles of "a poison" floating in the air; the air was filled with "white chalk dust"; she smelled ether and other noxious substances and tasted poison in her food and drinking water. A patient with a feeling of guilt perceived an indefinable "odor of death"

and a "taste of death." In the spheres of the cutaneous and somatic senses, patients are bitten by animals and pricked by enemies using fine needles. One patient said that people in the hall threw tiny darts into her room, darts so small as to be invisible but she could "feel them go right into my flesh." Another said that Negroes were burning her alive. Another, that bullets were flying all around, and that two were actually in her head at the moment. Another, that she had been crucified and the nails were still in her body; her heart was (literally) bleeding, and blood had soaked through mattress and floor and was being collected by her enemies in the cellar. A patient beginning to have insight recalled that earlier in her psychosis "I imagined my husband had fixed the dog up—bred it with another dog for to put the pup inside of me. The pup seemed to be up in my womb, and I tried to get it out, and I just screamed and cried because I thought I was going to give birth to an animal. I also thought I was going to give birth to a big bug." Another patient said there was a copperhead snake in her abdomen. Another, after the visit of the ward physician, asked the nurse, "Is he going to put a stone baby into me? . . . . Is he going to turn me into a dog?"

Delusions of persecution and of reference are abundant. Enemies are planning to kill the patient and have cast a spell on her. One said that other women on the ward made "funny maneuvers with their fingers" (wriggling movements) in order to pass the word along that she had lice in her hair. They snubbed her because she was poor; "they don't want to sit down beside me—when *I* sit down, they get up."

Ideas of electricity were present in no less than 6 cases. A patient said that during a recent X-ray examination her body had been "filled with electricity." The bed and other objects in her room were charged with electricity; her enemies "have the electricity turned on me all the time—I can feel the vibration." There was an "electric machine" on the floor above, where a woman undertaker was waiting for her body. An electric switch was concealed near her bed, and led to a nearby railroad track; the circuit was so arranged that the passage of a train would close it and electrocute her.

In view of the foregoing description, which looks like a page torn out of Kraepelin's book on dementia præcox, the average case is (from psychiatric examination alone) hardly to be distinguished from an "ordinary" schizophrenia. Examination of the serum, however, discloses a bromide intoxication, and soon after discontinuance of the drug (in most cases, three to five weeks) the patient recovers completely. These circumstances, coupled with the fact that the psychosis started after the patient had taken bromide to the point of intoxication, establish the diagnosis of bromide schizophrenia.

The cutaneous and neurological signs of bromide intoxication may be present. These need no discussion.

Orientation remains to be discussed, having been purposely left for the last. The 13 cases showed all gradations from cases with little or no disorientation (Cases 3, 6, 10 and 13) to cases with disorientation in the three spheres of time, place and person (Cases 2 and 4). In the remaining 7 cases disorientation was incomplete, being either confined to one sphere—*invariably the sphere of time*—or else most marked in that sphere. This disorientation is not to be regarded as part of the schizophrenic picture; its presence means that the bromide *has produced a delirium in addition to the schizophrenia.* Elsewhere(3) I have shown that severe delirium and mild delirium differ in that disorientation exists in all three spheres in the one, while in the other it is confined to, or is most marked in, the sphere of time. The reason for this is that orientation for time is a more complex function, hence more vulnerable, than orientation for place and person. When, therefore, a patient with bromide schizophrenia continues to take the drug till delirium supervenes, she will—as long as the delirium is in its incipiency—be disoriented only or chiefly for time. It was at this stage that 7 of the 13 patients came to the hospital. Two others came after the delirium had grown severe enough to be manifested by disorientation in all spheres. Four, on the other hand, came before delirium had begun or when it was just starting.

It has already been said that bromide schizophrenia looks like ordinary schizophrenia. This refers of course only to the schizophrenic component of the clinical pic-

ture, and not to any delirious admixture that might be present. Even when there is a delirious admixture, however, one may still say that bromide schizophrenia looks like ordinary schizophrenia: the patient in such a case looks like an ordinary schizophrenic who has taken enough bromide to become delirious.

Besides precipitating a transitory schizophrenia, can bromide intoxication precipitate a permanent schizophrenia? It probably can, though the answer cannot be given with certainty. One of the diagnostic features of bromide schizophrenia is its transiency. When a schizophrenia, having apparently supervened during bromide medication, fails to clear up under treatment, one cannot easily dismiss the possibility that the patient had in reality already started to become schizophrenic, and that the drug either played no rôle at all or else merely greased the skids a little. But if bromide intoxication can precipitate a transitory schizophrenia in a person moderately predisposed, why could it not precipitate a permanent psychosis in one gravely predisposed? That is just what other intoxications sometimes do.

Differences Between Bromide Schizophrenia on the One Hand and Bromide Delirium and Hallucinosis on the Other

In delirium, by definition, there is disorientation. In schizophrenia (provided there is no delirious admixture) orientation is intact. This, however, is not the only difference: there are four others.

1. Bromide schizophrenia occurs by preference in persons of strongly schizoid make-up, whereas delirium shows no such preference.

2. Schizophrenia and delirium stand at opposite poles in respect to disturbance of rapport. In the former, rapport is faulty, the patient being preoccupied, aloof, reticent and irritable, just as in any ordinary schizophrenia. By contrast, in bromide delirium rapport is conspicuously good: however befuddled and disoriented the patient may be, he is friendly, polite and willing to talk.

3. The content of bromide schizophrenia, like that of other schizophrenias and unlike that of delirium, has a pronounced flavor of the bizarre: ideas of influence and mind-reading, ideas of electricity and somatic distortions are prominent, as exemplified in the description given in the previous section.

4. The fourth—and most remarkable—difference merits discussion at some length. Though hallucinations and delusions occur both in schizophrenia and in delirium, there is this striking difference: in schizophrenia they reveal a quality of self-reference vastly exaggerated above that seen in delirium. In schizophrenia the patient's imaginations have a highly personal stamp. Voices reveal a disconcerting familiarity with her past and betray her innermost secrets; she alone is singled out for abuse; her enemies point scornfully at her alone; self-consciousness is at maximum pitch, the patient occupying the center of the stage, in full spotlight. By contrast, in delirium this intimate personal stamp is lacking. The imaginary disasters which have befallen or are about to befall the delirious patient are impersonal in the sense that they throw no spotlight on his innermost preoccupations. They are disasters which involve no shame. They affect others beside the patient, as in the idea that the house is on fire, endangering others as much as himself. They may even affect others exclusively, as in the idea that a dear one has been killed in an accident. Compare (a) the delirious woman's idea that her daughter has just been killed in an accident, and (b) the bromide schizophrenic woman's idea that people are "maneuvering" (wriggling) their fingers to show that they know she has lice in her hair. The former is a disaster but not a taunt; there is nothing shameful about it; it is the sort of thing one can talk about without embarrassment; it is not an idea of reference. The latter, on the other hand, is an idea of reference of the most painfully embarrassing kind. Both imaginations are, to be sure, complex-determined. The delirious woman doubtless had subconscious aggressive impulses toward her daughter. But these complexes are not as "intimate" as are those betrayed by the second woman's imagination.

To exemplify the contrast further, compare (a) the delirious woman who hears voices saying that her house is on fire, and (b) the bromide schizophrenic woman who

heard voices which said, "You're a devil in sheep's clothing. We're going to put you in the bughouse if it's the last thing we do." The hallucination in (b) is vastly more "personal" than in (a). To be sure, it is personal in (a) too, for the loss of one's home is a personal disaster of the first magnitude. But in (a) there is none of the heightened self-reference so evident in (b).

As a corollary to this distinction, there is a striking difference in the degree to which the patient imputes his troubles to the evil-doing of others. The delirious patient attributes his troubles not so much to persecution by spiteful enemies as to impersonal causes—a fire, an accident, etc. The schizophrenic believes himself the victim of persecution; the delirious man, the victim of hard luck. Moreover, when the delirious man *does* imagine that enemies have a hand in his trouble, they are apt to be enemies not just of himself alone, but enemies *of some group to which he belongs*. The delirious man is not a puny solitary individual singled out for abuse; he is a member of a group facing a common enemy.

Between bromide *hallucinosis* and bromide schizophrenia there is the same distinction in respect to degree of self-reference as between delirium and schizophrenia.

Four cases of delirium and one of hallucinosis will now be cited briefly in further illustration of this distinction.

(a) A veteran of World War I, in a fever delirium, fought imaginary German soldiers who he thought were trying to break into the building. Here one sees how the delirious patient who is not schizophrenic envisages a common enemy, rather than an enemy of himself alone.

(b) A newspaper reporter in a small steel town, during an alcoholic delirium, mistook me for his managing editor. There had been much labor trouble in the town, with strikes and riots. In his delirium he said to me in a tone of concern, "Now, Al, about that fight last night—it's really important! I'm telling you, it's a good story but it's one that involves *us*." He imagined that dynamite had been used by the warring factions and that he and I were in a dilemma: if we reported the riot fully, we would be treading on many toes. He had no real ideas of persecution. When, for example, he suspected that unfriendly people were watching him, he thought they were watching him not as a man they hated for himself but as a member of the opposing faction in a labor war.

(c) A woman in a drug delirium was fearful and uneasy, but, from start to end of her psychosis, she displayed not so much as a single idea of persecution. Invariably she explained her uneasiness by saying she had just received word (auditory hallucination) of some disaster that had befallen her family: her father had died, her husband had been hurt in an automobile wreck, her child had been kidnapped (by someone who wanted ransom and nothing else), and her aunt's house had caught fire.

(d) A woman who had recovered from a bromide delirium recalled the following scene from her psychosis. While lying in bed watching people passing by in the hospital corridor, she thought she saw a man approach a woman and demand money; the woman asserted she had no money, whereupon he drew a gun and assumed a menacing attitude; the woman gave in and said, "All right, I'll get you some money"; she left and soon returned with a revolver which she fired many times at the retreating man. In contrast to the great self-awareness of the schizophrenic, the incident experienced by this delirious woman shows an utter lack of self-awareness, the patient being merely a passive spectator of a horrible scene which did not concern her, save insofar as she might have been menaced by a stray bullet.

(e) Similar to the foregoing is the case of a non-schizophrenic woman in a bromide hallucinosis who said she saw people tossing babies out the window. The babies were not hers, and the incident did not concern her except as it stirred her to pity and horror. This is a clear example of freedom from self-reference.

Thus it is evident that the non-schizophrenic patient with delirium or hallucinosis shows no great increase in self-consciousness. In his imaginations he plays, for the most part, the rôle of a mere onlooker. Unlike the schizophrenic, he does not feel he is in the limelight. If the schizophrenic is like an actor on a stage in the full spotlight of public scrutiny, the delirious non-schizophrene is

like a member of the audience in a darkened theater—an anonymous member of the crowd, a witness to a grim tragedy, but himself unseen and unnoticed. This distinction is of the utmost importance; it lies at the root of the difference in the way the two groups of patients think and feel.

* * * *

The foregoing distinctions between schizophrenia and delirium having been presented, it now remains to consider further a fact already briefly alluded to earlier, namely that the two disorders may co-exist. As has already been mentioned, 9 of the 13 patients in this series showed varying degrees of delirium, as manifested by disorientation. It cannot be overemphasized, however, that the two disorders, notwithstanding that they may co-exist, are distinct from one another. Disorientation is not an element in the schizophrenic syndrome, as every psychiatrist knows from his experience with ordinary schizophrenia. Hence, when a person taking bromide enters an acute schizophrenia, and subsequently, having taken more bromide, becomes in addition disoriented, it would be a mistake to say that the schizophrenia and the disorientation are merely the symptoms of a single drug psychosis. There has been an unfortunate tendency in psychiatry to give patients a single diagnosis when they have two or more separate disorders. Consider a man of subnormal intelligence who is also a chronic drinker and is admitted to hospital with delirium tremens. It is one thing to say that for the purpose of the hospital's annual report he should be classified as a case of alcoholic psychosis, the disorder which caused his admission. But it is quite another to say that he is suffering from a single psychiatric disorder when in fact he has three. Consider further a man with pneumococcic pneumonia who develops empyema. No one would say that such a case should be given a single diagnosis such "pneumococcic chest disease"; the man has two disorders which are distinct even if they co-exist and are in a fashion related. They are distinct because a man may have one without the other. When a patient with bromide schizophrenia keeps on taking the drug and becomes disoriented, it would be misleading to say that he still has the one psychosis, which now has taken a turn for the worse. If he has grown worse, it was by acquiring a second and new psychosis, delirium—a psychosis as distinct from schizophrenia as empyema is from pneumonia, a psychosis which may befall a schizophrene no less than a non-schizophrene and which may supervene upon a toxic as much as upon an ordinary schizophrenia.

What is the relative gravity of bromide delirium and bromide schizophrenia? Anyone who had a choice in the matter would assuredly prefer the former, for no one likes to think of himself as possessing a latent schizophrenia. Nevertheless, from the standpoint of pathophysiology delirium must be regarded as the more deep-seated of the two, since it presupposes a severer dissolution of the highest cerebral centers. The bromide schizophrene, however unbalanced he may be, is still normal enough to be oriented. As regards depth of dissolution he is closer to normal than the delirious man, who lacks even a child's grasp of his environment.

Since delirium signifies a deeper dissolution than schizophrenia, it seems fair to assume that when they co-exist, the delirium must have supervened upon the schizophrenia in consequence of worsening of the intoxication. This assumption is supported by clinical evidence, which however is imperfect, for it is seldom possible to ascertain with precision the exact order of appearance of symptoms in retrospect; and once the patient has come under the physician's care it is of course impossible to allow the intoxication to worsen so that one might study the progress of the ensuing deterioration.

Statistics

This study is based on cases admitted to the Harrisburg (Pennsylvania) State Hospital in a period of 6½ years (1931-37) and to the psychiatric department of the Pittsburgh City Hospital (Mayview, Pa.) in one year (1938-39). Throughout all but a few months of the period of this study the serum of every patient was examined for bromide (Walter-Hauptmann method) soon after admission.

Table I shows the frequency of bromide schizophrenia as compared with other better known bromide psychoses. Only those cases were counted which could positively be said

TABLE I

INCIDENCE OF BROMIDE PSYCHOSES IN PERIOD OF STUDY (1931-39)

	Male	Female	Total
First admissions	1245	1028	2273
Bromide psychoses:			
Simple intoxication	5	5	10
Delirium	16	32	48
Hallucinosis (non-schizophrenic)	..	3	3
Schizophrenia	..	13	13
Total bromide psychoses	21	53	74

veloped a simple intoxication or delirium. These cases are not listed with the bromide schizophrenias, since the drug did not *produce* a schizophrenia but merely added something new to one that already existed.

Table II gives certain data for the 13 cases of bromide schizophrenia. Three comments may be made in reference to Table II:

1. *Sex.*—All 13 cases were in women. Bromide psychoses show a remarkable preference for women.

2. *Age.*—Compared with cases of bromide delirium, patients with bromide schizo-

TABLE II

DATA ON THIRTEEN CASES OF BROMIDE SCHIZOPHRENIA

Case No.	Sex	Age	Immediate reason for taking bromide	Duration of schizophrenia before admission	Degree of delirium accompanying the schizophrenia			Serum bromide concentration, mgm. per cent	Day of hospital residence on which serum bromide was determined	Duration of schizophrenia after discontinuance of bromide[b]
					None	Slight	Severe[a]			
1	F	40	Fatigue; nervous tension	2½ weeks	..	×	..	325	6th	4 weeks
2	F	27	Nervous tension	2 "	..	..	×	350	5th	12 months (I)
3	F	30	Worry over religious conflicts	6 "	×	..	..	250	8th	10 " (I)
4	F	18	Mild depression	4 "	..	..	×	150	6th	5 weeks
5	F	65	"Slight stroke" followed by depression and restlessness	1 "	..	×	..	200	6th	5 "
6	F	33	Worry over husband's unemployment	1 "	×	..	..	50	12th	2 "
7	F	39	Hysterical shaking spells	2½ "	..	×	..	325	5th	7½ "
8	F	30	Bronchial asthma	3 "	..	×	..	157	6th	4 "
9	F	47	Insomnia	6 "	..	×	..	306	3rd	2½ "
10	F	44	Worries	3 "	×		..	357	2nd	3½ "
11	F	46	Headache	6 days	..	×	..	227	3rd	5 months (I)
12	F	31	Fatigue; headache	3 weeks	..	×	..	345	5th	3¼ weeks
13	F	37	Idiopathic epilepsy	2 "	×	..	..	333	1st	4 days

Notes: [a] "None" means that the patient was oriented in all spheres, with at most only occasional fleeting disorientation for time.
"Slight" means that there was conspicuous disorientation for time, but no more than occasional lapses as regards place and person.
"Severe" means that there was pronounced disorientation in all spheres.
[b] No patient received bromide after admission to the hospital. Most patients received it until admission or shortly before. "Duration after discontinuance," therefore, is in most cases the duration after admission.

to have a bromide psychosis; it had to be established that the psychosis had begun while the patient was taking bromide, that there was bromide in the serum, and that the psychosis cleared up relatively soon after discontinuance of the drug (though, as will be seen presently, some cases take relatively long to clear up).

Several cases were seen in which the patient was clearly schizophrenic before he began to take bromide, after which he de-

phrenia (taken as a group, of course) are remarkably young. In a previous study of 34 patients with bromide delirium (2), all but 2 were past forty. By contrast, in the 13 cases of bromide schizophrenia, only 5 patients were past forty; 6 were in their thirties, one was twenty-seven, and one only eighteen. Moreover, while no less than 22 of the 34 delirious patients were past fifty, only one such case occurred in the schizophrenia series. Thus bromide delirium is,

speaking generally, a disease of middle and old age, while bromide schizophrenia is one of relative youth. This is not surprising; people with strongly schizoid personalities are notoriously prone to run into trouble relatively early in life.

3. *Duration after discontinuance of bromide.*—Seven patients got well in less than a month. Three required more than one but less than two months. The remaining 3 required, respectively, five, ten and twelve months. In previous papers(1, 2) it was shown that while bromide delirium usually lasts several weeks after discontinuance, it sometimes lasts several months. This appears to be true also of bromide schizophrenia.

Bromide Schizophrenia in the Light of the Modern Conception of Schizophrenia

Bromide intoxication is not unique in its ability to activate a latent schizophrenia; other toxemias can do it too. For years it has been known that fevers, infections and debilitating diseases can precipitate a schizophrenia which may clear up when physical health has been restored. Stated differently, when schizophrenia begins acutely in association with severe physical illness the outlook for "cure" is greater than when it makes a furtive appearance during perfect physical health.

The notion of an intoxication activating a latent schizophrenia which subsequently may become latent again is quite in keeping with the modern conception of this psychosis. Schizophrenia can no longer be looked upon as inevitably permanent. It is a psychosis characterized by the presence of certain symptoms and signs, and produced by a variety of causes, some relating to "predisposition," others to precipitating factors. The duration of the manifest schizophrenia depends on the gravity of its causes. When predisposition is great and precipitating causes irreversible, the schizophrenia will be permanent. Conversely, a benign and remediable cause such as bromide intoxication acting on a constitution not too gravely predisposed may produce a transient schizophrenia which will clear up when conditions once more become favorable.

Constituting as it does a clinical picture which may be either permanent or transient, schizophrenia may be compared with a variety of other conditions, for example, epilepsy. In the ordinary "idiopathic" epilepsy one deals with a convulsive tendency of which in most cases the patient will never be rid: "ordinary" epilepsy, like "ordinary" schizophrenia, tends to be permanent. In other cases convulsions occur only during a circumscribed physical illness, as in a child with fever or a woman with eclampsia. These cases too, for all their transiency, are cases of epilepsy (in the scientific use of that term), but they are cases in which predisposition is weak enough and exciting causes remediable enough to permit recovery.

Miscellaneous Remarks

Bromide syndromes.—There are two ways to approach the study of the symptomatology of an intoxication: (1) one might simply make up a long list of all the symptoms known to occur (thus, in bromide intoxication—lethargy, restlessness, depression, fear, delusions, hallucinations, disorientation, etc.), or (2) one might consider the various *syndromes* producible by the intoxication. The second is the better way. To see how misleading the first way is, consider the analogy of a physician who wrote that pneumococcic infection may cause these symptoms: cough, stiff neck, pain in the chest, violent headache, etc. No one would be satisfied with such a mere listing, which ignores the tendency of certain symptoms to occur in constellations. What one wants to know is, What *syndromes* can the pneumococcus produce? It can produce a *pneumonia* (cough, pain in chest, etc.), a *meningitis* (headache, stiff neck, etc.), and so on. Similarly bromide intoxication produces, not a list of symptoms as long as this page, but a variety of syndromes, of which four are now known, each of which has its own constellation of symptoms and characteristic stamp.

Importance of routine bromide tests.—Every psychiatric patient ought to have a quantitative serum bromide determination *routinely* on admission to hospital. It is not enough to do the test in selected cases, for sometimes one does not suspect intoxication until the bromide has had time to vanish from the blood and chemical verification is no

longer possible. It is in the bromide schizophrenias—more so than in the deliria—that one is apt to overlook the bromide factor. In an unexplained delirium the experienced psychiatrist will always remember to rule out bromide. It is different with bromide schizophrenia, which resembles other schizophrenias so closely that even the most alert will be misled. Consider the following sample case. An eccentric schizoid woman, under the influence of emotional stress, becomes nervous and starts to take bromide. Medication is not carefully controlled, and soon there is an intoxication which manifests itself in an increase in previous symptoms and in the appearance of new ones such as inactivity and dullness. She neglects her work and withdraws from her friends. Presently she begins to have hallucinations and ideas of persecution of the type described previously in this report. If the physician does not know that she has a bromide intoxication, and does not know that this intoxication can produce just such a picture, is it any wonder that he makes a diagnosis of ordinary schizophrenia, which, when to everyone's surprise she recovers, is altered to read "schizophrenic episode"?

The recognition of bromide schizophrenia is especially important today, when so much attention is being paid to shock treatment. Shock treatment sometimes produces quick and dramatic "cures," especially in cases of recent onset. But cases of recent onset *might* have been cases of bromide schizophrenia, which would have cleared up anyway (provided the drug was stopped). One wonders to what extent the statistics of shock treatment have been vitiated by the unwitting inclusion of toxic schizophrenias which would have cleared up anyway. The one toxic schizophrenia whose presence or absence can be accurately determined is that due to bromide, and every psychiatrist dealing with acute cases ought to be cognizant of it.

Summary and Conclusions

A bromide psychosis is one which starts during bromide intoxication and clears up fairly soon—usually several weeks, though sometimes longer—after discontinuance of the drug. Four varieties of bromide psychosis are known:

1. *Simple intoxication*, marked by dullness and mental sluggishness, with good orientation, and without delusions or hallucinations.

2. *Delirium*, marked by disorientation, thinking disturbances, mood disturbances (usually fear), delusions, hallucinations and other symptoms.

The first two varieties are well known; the next two are not.

3. *Hallucinosis*, which differs from delirium in that orientation is intact.

4. *Schizophrenia*, a psychosis of predominantly paranoid coloring which, to the examiner who does not know the history and laboratory findings and has not yet seen the outcome, has all the earmarks of an "ordinary" paranoid schizophrenia, from which it differs only in that it is a transient psychosis which has supervened during bromide intoxication.

Sometimes a bromide schizophrenia is accompanied by disorientation, a symptom which does not belong to the schizophrenic picture. In such cases it is believed that the bromide schizophrenia came first, and that delirium ensued subsequently because the drug was not stopped. Such cases are to be distinguished from those "ordinary" schizophrenics who, because of pre-existing psychotic symptoms, start taking bromide and take it long enough to become delirious. Anyone who takes enough bromide may become delirious, and there is nothing remarkable when this happens to an ordinary schizophrenic. It is quite different with the patient who was not manifestly schizophrenic until bromide made her so.

Bromide schizophrenia differs from bromide delirium and hallucinosis in the following respects (leaving aside for a moment the basic difference between delirium and other psychoses in respect to orientation):

1. Bromide schizophrenia occurs by preference in persons with strong schizoid leanings, while delirium and hallucinosis show no such preference.

2. The characteristic schizophrenic disturbance of rapport is not found in delirium and hallucinosis.

3. The content of the schizophrenia, as

in any ordinary schizophrenia, has a flavor of the bizarre: ideas of influence and mind-reading, ideas of electricity and somatic distortions are apt to be prominent.

4. In schizophrenia the patient's delusions and hallucinations are marked by heightened self-reference, which is not the case to the same degree in delirium and hallucinosis.

It is concluded that bromide intoxication has the power to bring to the surface a latent schizophrenia, which, when favorable conditions have been restored, may once again go into hiding. In this respect bromide intoxication resembles many other intoxications.

It is wise to examine the serum for bromide *routinely* in every acute psychosis, rather than to do so only "when indicated." If the test is not made routinely, one will overlook some cases, for sometimes one does not suspect a bromide psychosis until an unexpected recovery has opened one's eyes, at which point it may be too late to verify the diagnosis chemically.

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ORBITAL CORTEX SYNDROME FOLLOWING LEUCOTOMY

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After prefrontal lobotomy certain signs of frontal lobe deficiency have been described, of which boastfulness, diminished inhibition, impairment of synthesis and planned initiative, and laziness are perhaps the best known. As Nichols and Hunt [1] emphasised, the appearance of these symptoms covers up the pre-existing psychotic symptomatology and, during rehabilitation, the personality tries to reintegrate itself between the two groups of symptoms. Recovery then is the favourable balance of the dual symptomatology.

With these considerations in mind an attempt was made to study the orbital cortex syndrome presented by patients in whom a section of the orbital connective system had been made. The operation is referred to as "orbital leucotomy." The clinical justification for this operation was based on observations of Freeman and Watts (1942), who noticed that "cores in the lower part of the frontal lobe, produced a higher incidence of good results, than cores placed in the upper part of the frontal lobe." Whilst Dax and Radley-Smith (1943) emphasised the clinical significance of the orbital section, Hofstatter, Smolek and Busch (1945) reported their results on 22 schizophrenics in whom only the lower quadrants of the pre-frontal white matter were sectioned. Dax and Radley-Smith (1946) reported also on the "orbital cut," on over 26 mixed cases, and the material analysed below formed a part of their case material.

Case Material and Technique

This consisted of 22 patients, 18 females and 4 males. In particular the diagnostic groups were: 5 hebephrenias, 4 simplex, 6 catatonic, 3 paranoid schizophrenias and 4 paraphrenias. The average age of the whole group was 30 years (range 19-52). The premorbid personality of the cases was poor in 36%, and in a corresponding percentage mental illness in the family had been ascertained. The average known duration of illness was $4\frac{1}{2}$ years (range 2-7). The patients had all received insulin and/or electric convulsive treatment, and some of them prolonged narcosis treatment, but all had remained refractory to these therapeutic measures.

The preoperative measures were as follows: The hair was completely shaved; the preoperative medication consisted of 1/75 grain of atropin, and the subsequent gas and oxygen anaesthesia was preceded by avertin. The incision was made 3 cm. behind the external angular process and 3 cm. above the zygoma. The anterior end of the temporoparietal suture was exposed and a small trephine hole made anteriorly to the suture line. The dura was incised crucially. By this technique the Sylvian vessels became visible at the lower posterior end of the trephine hole and the brain was entered approximately at the opposite margin. The leucotome (McGregor-Crombie type) was aimed at the midpoint of the line drawn from opposite zygoma to the vertex in the plane of the coronal suture, and inserted to a depth of $4\frac{3}{4}$ cm. from the cortex; its blade was then rotated in the vertical plane, and the cut made. A similar procedure was carried out on the opposite side and finally, the incisions were closed. None of the operation cases had incontinence after 48 hours, but they were markedly restless for the first 8 hours, drowsy and moderately confused for 3-4 days after the operation. Cases with preoperative excitement returned to their morbid behaviour pattern after the third postoperative day.

Neurological complications were transient: in 5 cases spastic tendon jerks and upgoing toes were seen for 24 hours, and in 2 cases slurred speech for the same period. 1 case, a schizophrenia simplex, exhibited, apart from upgoing toe, apathy and slowed down cerebration for 6 weeks. Otherwise no intellectual deterioration was noticed in any of the cases following operation.

Results

The present paper discusses "immediate" results only, which became apparent from 3

[1] Quoted after Freeman and Watts.

to 6 weeks after the operation. The shortest postoperative observation of the reported cases is 12 weeks. Final evaluation can only be ascertained after long "follow up" periods; but in our experience of these cases the ones which did not show improvement within 6 weeks had remained unchanged up to 8 months after the operation.

The operative results may be grouped into three categories: first the social adjustments, which includes the cases who have been discharged or who are learning a new occupation and who would otherwise be discharged and are not in need of further treatment. Secondly: institutional adjustment, denoting cases who, prior to operation, had to be kept in closed wards under constant supervision and who are now in open villas, partaking in the social club activities, but who so far remain incapable of adjusting themselves outside the institution. Thirdly: cases showing slight or no postoperative improvement.

TABLE I

Type	No.	Postoperative adjustment: Social	Institution	None
Simplex	4	2	1	1
Hebephr.	5	3	1	1
Cataton.	6	..	..	6
Paranoid	3	..	..	3
Paraphr.	4	2	1	1

In analysing and relating the clinical data, it seems that no correlation can be made regarding the age, premorbid personality or duration of illness with the favourable or unfavourable results, nor has any such correlation yet been achieved by other workers. The correlation of diagnostic sub-groups to the results obtained is illustrated in Table I. This shows social improvement in only 32% and institutional improvement in 14%; these results compare unfavourably with the reported recovery rates of other workers.

On the other hand, it should be remembered that leucotomy (or lobotomy) is not directed towards amelioration of diagnostic entities, but rather towards the relief of certain symptoms. With this in mind, the case material was re-examined from a symptomatological point of view. It was found that the preoperative psychotic symptoms common to the cases which responded well to orbital leucotomy were: indecisiveness, depersonalisation, blockage of thought and some perplexed anxiety; they exhibited vague, dreamy attitudes, lack of initiative and progressive withdrawal. On the other hand, cases which exhibited excitement, restlessness and aggressiveness, or showed an agitated picture with marked tension did not respond to the type of operation as outlined above. Table II illustrates these points;[2] it also suggests that cases which have been described as having poor outlook from the usual leucotomy viewpoint, respond favourably to isolation of the orbital cortex. This also explains why Freeman and Watts obtained negative results after dividing the orbital connections only; their cases exhibited distress, agitation and great tension. Postoperatively, they also showed a greater intellectual deficit, and the reorganisation of the personality after operation was less complete. It should be recalled, that in the Freeman and Watts technique fibres to the convexity of the cortex are undercut and not those to area 10, 11 and 12 (R. Cohn, 1945). If one agrees with Cobb (1943) that the basal cortex represents more the emotional integration and the convexity of the frontal lobe the intellectual integration, the absence of gross personality disturbances after orbital leucotomy can be explained. The symptomatology of Hofstetter's cases is not reported in detail, consequently his results remain incomparable.

TABLE II

Type	No.	Postoperative adjustment: Social	Institution	None
Vague, dreamy, introvert, etc.	9	5	3	1
Deluded, depressed, tension	4	2	..	2
Excited, aggressive, impulsive, etc.	9	..	..	9

For the sake of brevity only three case extracts illustrating the response to orbital leucotomy are given.

CASE 1.—E. S., aged 25, schizophrenia simplex. She comes of a sound stock and had fairly good premorbid personality. Five and a half years ago

[2] Cases exhibiting depressive symptoms have not been analysed, as they should be grouped with non-schizophrenic depressive states.

she became solitary and exhibited blockage of thought. Though she appeared depressed and it was thought that but for lack of initiative, she might have become suicidal, her emotions were dulled. In spite of convulsive therapy and insulin treatment she deteriorated progressively, became more solitary, talked only in telegram style and was ultimately unable to give an account of herself. Orbital leucotomy was performed on 29.12.45. Five days after the operation she greets the doctor smilingly: "I have a bone to pick with you. Why did you have to cut my hair off, and why did you cut me on both sides? Anyhow, I am glad you cut out those silly love ideas from my head . . . ." and so on. Fourteen days later she was in another ward, still exhibited a pressure of talk, did any work she could, almost forcing her help on the nurses. There was no sign of introverted tendencies, and she said she was very happy and wanted to have more to do. Six weeks later, in one of the open villas, she rather bullied her fellow patients, but in a pleasant, inoffensive manner. She discussed the operation on several occasions, and noted with delight that she was better and "the whole past is better forgotten." She was described by the others as sociable, cheerful and a good worker. As she kept up her improvement she was discharged four months after the operation.

Case 2.—T. W., aged 23 years. Hebephrenia. She comes of a good stock and had a very good pre-psychotic personality. Was serving in the W.R.N.S. when after a bombing her first attack commenced. She was transferred to a service hospital where the diagnosis was established. Had electrical convulsion treatment but did not respond to it. When admitted to Netherne as a civilian, she was markedly introverted, hardly answered questions except in telegram style. She neglected her appearance and giggled frequently for no apparent reason, and was lacking in initiative. Having been refractory to all attempted treatment, orbital leucotomy was performed. Seven days after the operation her giggling disappeared and has never returned. She was able to give a good account of her past history but was disinclined to discuss her illness. During the next few weeks she became increasingly active, but in a "restless" manner. She started off with one activity, dropped it easily to turn to something else, *i.e.*, drawing, needlework, help in the ward, etc. Two months after the operation she forced her company on others with unnatural gaiety, and made herself a nuisance in the patient's social club. At the time of reporting her personality reintegration is more or less established. Although she is carefree and extroverted and shows no signs of lack of initiative her recovery remains an institutional one.

Case 3.—S. T., aged 23. Hebephrenia. Comes of a sound stock but had a bad prepsychotic personality. Her illness commenced 3½ years prior to operation. She developed uncoordinated restlessness, showed bizarre mannerisms and was liable to aggressive and impulsive actions. She neglected her appearance and masturbated excessively. Previous therapeutic attempts were without result. Orbital leucotomy was performed on 15.3.46. She remained incontinent for two days after the operation and during convalescence the effects of orbital leucotomy became apparent: she was restless, could not carry on any planned activity, she laughed, giggled and said she felt like "jumping over the moon." She was jocular in a crude and dissociated way and annoyed her wardmates and the nursing staff. In spite of every attempt no improvement followed five months after the operation. This case evidently belongs to the not recovered group.

Comment

Following the orbital leucotomy three features of the symptomatology produced are more marked than following the conventional prefrontal leucotomy. These are: extroversion, increased motor activity and euphoria. This syndrome seems very similar to Rylander's (1939) observation on patients who lost part of their orbital region after lobotomy; these latter cases exhibited euphoria, restlessness and lack of restraint. Of earlier clinical observations Spatz' (1937) findings on Pick's disease denoted similar symptoms when the orbital and temporal cortex were involved: such cases exhibited restlessness, euphoria and talkativeness. Of the experimental results, Ruch and Shenkin (1943) demonstrated that bilateral ablation of area 13 produces hyperactivity.

In an attempt to correlate the clinical syndrome (extroversion, increased motor activity and euphoria) to neural levels, the operation was carefully reproduced on post-mortem material as Dax reported. It revealed that the operative cut lies basally and medially in the frontal lobe, at a level of Brodmans areas 24 and 32 on the medial; 8, 9, 46, 45, 47 on the convex; 11, 12 on the basal surfaces of the hemispheres. The connective fibres most probably severed included the thalamo-cortical radiation to areas 10, 11, 12 and part of those connecting area 46. It may be that some fibres to area 13 were damaged; to a greater extent the uncinate fasciculus was severed, and the callosal radiation was incompletely severed. It seems that the greater part of the orbital cortex was isolated. The emphasis is always laid on the severance of the thalamic radiation from the magno-

cellular part of the dorsomedian nucleus; yet it seems that the connecting pathways to the temporal lobe may have neuropathological significance in evaluating the "orbital" syndrome. McCulloch (1944) demonstrated that area 11 fires to area 38 and it is known that the uncinate fasciculus connects 11 and 12 to the same temporal region. Spatz' observations as quoted above included involvement of the temporal areas; Head and Holmes attributed feelings of depersonalisation to irritative phenomena of the temporal areas, and Kluver and Bucy (1938) noted diminished fear and anger responses after bilateral temporal lobectomy on monkeys. This evidence supports our clinical observations that the severance of orbito-temporal inter-relations may play a greater part in ameliorating certain mental symptoms than has hitherto been supposed.

Summary

1. The orbital cortex was partly isolated on 22 schizophrenics, and good response was observed where there were symptoms of introversion, blockage, emotional dulling and depersonalisation present.

2. The isolation of the orbital lobe produced a triad of symptoms described as: extroversion, increased motor activity and euphoria.

3. It was emphasised that the new symptoms produced, balance well with the pre-existing psychotic symptoms.

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IRRELEVANT AND METAPHORICAL LANGUAGE IN EARLY INFANTILE AUTISM[1]

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During the past few years, I have had occasion to observe 23 children whose extreme withdrawal and disability to form the usual relations to people were noticed from the beginning of life. I have designated this condition as "early infantile autism." Phenomenologically, excessive aloneness and an anxiously obsessive desire for the preservation of sameness are the outstanding characteristics. Memory is often astounding. Cognitive endowment, masked frequently by limited responsiveness, is at least average. Most patients stem from psychometrically superior, though literal-minded and obsessive, families.

This condition offers fascinating problems and opportunities for study from the points of view of genetics, of the psychodynamics of earliest parent-infant relationship, and of its resemblances to the schizophrenias. Among numerous other features, the peculiarities of language present an important and promising basis for investigation. I should like to mention briefly the "mutism" of 8 of the 23 children, which is on rare occasions interrupted by the utterance of a whole sentence in emergency situations; the use of simple verbal negation as magic protection against unpleasant occurrences; the literalness which cannot accept synonyms or different connotations of the same preposition; the self-absorbed inaccessibility which has caused most of the parents to suspect deafness; the echolalia-type repetition of whole phrases; and the typical, almost pathognomonic, pronominal reversals which consist of the child's reference to himself as "you" and to the person spoken to as "I."

Frequently these children say things which seem to have no meaningful connection with the situation in which they are voiced. The utterances impress the audience as "nonsensical," "silly," "incoherent," and "irrelevant." These are the terms used by the reporting parents, physicians and nursery school teachers.

We were fortunate in having opportunities to trace some of these "irrelevant" phrases to earlier sources and to learn that, whenever such tracing was possible, the utterances, though still peculiar and out of place in ordinary conversation, assume definite meaning. I should like to illustrate this with a few characteristic examples:

Paul G., while observed at our clinic at five years of age, was heard saying: "Don't throw the dog off the balcony." There was neither a dog nor a balcony around. The remark therefore sounded irrelevant. It was learned that three years previously he had thrown a toy dog down from the balcony of a London hotel at which the family was staying. His mother, tired of retrieving the toy, had said to him, with some irritation: "Don't throw the dog off the balcony." Since that day, Paul, whenever tempted to throw anything, used these words to admonish and check himself.

"Peter eater" was another of Paul's "nonsensical," "irrelevant" expressions. It seemed to have no association with his experiences of the moment. His mother related that, when Paul was two years old, she once recited to him the nursery rhyme about "Peter, Peter, pumpkin eater," while she was busy in the kitchen; just then she dropped a saucepan. Ever since that day Paul chanted the words "Peter eater" whenever he saw anything resembling a saucepan. There was, indeed, in the playroom a toy stove on which sat a miniature pan. It was noted then that Paul, while saying these words, glanced in the direction of the stove and finally picked up the pan, running wildly around with it and chanting "Peter eater" over and over again.

John F., at five years of age, saw Webster's Unabridged Dictionary in the office. He turned to his father and said: "That's where you left the money." In this instance the connection was established by the fact

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

that John's father was in the habit of leaving money for his wife in the dictionary which they had at home. Upon being shown a penny, John said: "That's where play ten pins," as a sort of definition of penny. His father was able to supply the clue. He and John played ten pins at home with a children's set. Every time that John knocked over one of the ten pins, his father gave him a penny.

Elaine C. had been surrounded in her infancy with toy animals of which she was very fond. When she cried, her mother used to point out to her that the toy dog or toy rabbit did not cry. When Elaine was seen at seven years of age, she still kept saying when she was fearful and on the verge of tears: "Rabbits don't cry." "Dogs don't cry." She added a large number of other animals. She went about, when in distress, reiterating the seemingly irrelevant words: "Seals don't cry." "Dinosaurs don't cry." "Crayfishes don't cry." She came to use the names of these and other animals in a great variety of connections.

Jay S., not quite four years old, referred to himself as "Blum" whenever his veracity was questioned by his parents. The mystery of this "irrelevance" was explained when Jay, who could read fluently, once pointed to the advertisement of a furniture firm in the newspapers, which said in large letters: "Blum tells the truth." Since Jay had told the truth, he *was* Blum. This analogy between himself as a teller of the truth and Blum does not differ essentially from the designation of a liar as Ananias, a lover as Romeo, or an attractive lad as Adonis. But while these designations are used with the expectation that the listener is familiar with the analogy, the autistic child has his own private, original, individualized references, the semantics of which are transferable only to the extent to which any listener can, through his own efforts, trace the source of the analogy.

The cited examples represent in the main metaphorical expressions which, instead of relying on accepted or acceptable substitutions as encountered in poetry and conversational phraseology, are rooted in *concrete, specific, personal* experiences of the child who uses them. So long as the listener has no access to the original source, the meaning of the metaphor must remain obscure to him, and the child's remark is not "relevant" to any sort of verbal or other situational interchange. Lack of access to the source shuts out any comprehension, and the baffled listener, to whom the remark means nothing, may too readily assume that it has no meaning at all. If the metaphorical reference to Ananias, Romeo or Adonis is not understood, dictionaries, encyclopedias or informed persons can supply the understanding. But the personal metaphors of the autistic children can convey "sense" only through acquaintance with the singular, unduplicated meaning which they have to the children themselves. The only clue can be supplied by the direct observation and recall of the episode which started off the use of each particular metaphorical expression.

Occasionally, though not very often, a chance gesture or remark of the child himself may lead to the understanding of a metaphor. This was the case when Jay S. happened to point to the Blum advertisement. This was also the case when five-year-old Anthony F. solved the puzzle of his frequently expressed fondness for "55." On one occasion, he spoke of his two grandmothers. We knew that one of them had shown little interest in him, while the other had reared him with much patience and affection. Anthony said: "One is 64 [years old], and one is 55. I like 55 best." The seemingly irrelevant preoccupation with a seemingly arbitrary number can now be recognized as being heavily endowed with meaning. It is Anthony's private way of expressing affection for his grandmother.

This phenomenon of metaphorical substitution is very common among our autistic children. Donald T., at seven years of age, was asked the Binet question: "If I were to buy 4 cents worth of candy and give the storekeeper 10 cents, how much money would I get back?" He obviously knew the answer. His reply, however, was not "6 cents" but: "I'll draw a hexagon." Two years previously, at 5 years of age, Donald had been scribbling with crayons; all the while he kept saying seriously and with conviction: "Annette and Cecile make purple." It was learned that

Donald had at home five bottles of paint. He named each after one of the Dionne quintuplets. Blue became "Annette," and red became "Cecile." After that, Annette became his word for blue, and Cecile for red. Purple, not being one of the five colors, remained "purple."

It is mainly the private, original frame of reference which makes these substitutions seem peculiar. We witness similar processes in the introduction of trade names for perfumes, wines, cigarettes, cigars, paints and many other items. Etymology abounds with similar derivations. Common usage makes it unnecessary to know the original source in order to get the meaning. An ulster is a certain type of top coat whether or not you connect it with the county in Ireland from which it has its name. You need not know that a serpent is a "creeper" or that a dromedary is a "runner." It does not matter whether or not you know that filibuster is a corrupted form of "freebooter."

The autistic child does not depend upon such prearranged semantic transfers. He makes up his own as he goes along. In fact, he can keep transferring and retransferring to his heart's desire. Gary T., at five years, designated a bread basket as "home bakery." He did not stop there. After this, *every* basket to him became a "home bakery." This was his term for coal basket, waste basket or sewing basket. This procedure, too, has its etymological counterparts. The original meaning of "caput" is transferred from anatomy to anything which, literally or figuratively, is at the top or at the "head," whether this be "captain," the head of a group of people, "capitol," the top of a pillar, or "chapter," the inscription over a section of a book. The transfer does not even stop there, for a "chapter" then becomes not only the "heading" of the section but the whole section itself.

From these observations we may safely draw a number of significant conclusions:

1. The seemingly irrelevant and nonsensical utterances of our autistic children are metaphorical expressions in the sense that they represent "figures of speech by means of which one thing is put for another which it only resembles." The Greek word metapherein means "to transfer."

2. The transfer of meaning is accomplished in a variety of ways:

a. Through substitutive analogy: Bread basket becomes "home bakery"; Annette and Cecile become "red" and "blue"; penny becomes "that's where play ten pin."

b. Through generalization: *Totum pro parte.* "Home bakery" becomes the term for *every* basket; "Don't throw the dog off the balcony" assumes the meaning of self-admonition in *every* instance when the child feels the need for admonishing himself.

c. Through restriction: *Pars pro toto.* The 55-year-old grandmother becomes "55"; a teller of the truth becomes "Blum"; the number 6 is referred to as "hexagon."

3. The linguistic processes through which the transfers are achieved do not as such differ essentially from poetical and ordinary phraseological metaphors. Etymologically, much of our language is made up of similar transfers of meaning through substitutions, generalizations and restrictions.

4. The basic difference consists of the autistic privacy and original uniqueness of the transfers, derived from the children's situational and emotional experiences. Once the connection between experience and metaphorical utterance is established, and only then, does the child's language become meaningful. The goal of the transfer is intelligible only in terms of its source.

5. In contrast to poetry and etymology, the metaphorical language in early infantile autism is not directly communicable. It is not primarily intended as a means of inviting other people to understand and to share the child's symbols. Though it is undoubtedly creative, the creation is in the main self-sufficient and self-contained.

"The abnormality of the autistic person," say Whitehorn and Zipf, "lies only in ignoring the other fellow: that is, it lies in his disregard of the social obligation to make only those changes which are socially acceptable in the sense that they are both understandable and serviceable in the group. Naturally, once the autistic person pursues his own linguistic and semantic paths of least effort, the result may well appear to his perplexed auditor as a disorder of meanings, or even as a disorder of association. Yet the autistic speaker, in making his

own language, without the nuisance of satisfying the auditor's needs, may employ the same principles of linguistic and semantic change as does the normal person, though not with the same care to insure community acceptance."

The above observations and conclusions gain additional importance because they give concrete evidence to the long-felt assumption that similar mechanisms prevail in the "irrelevant," "incoherent," and metaphorical language of adult schizophrenics. In the case of the latter, the earlier and earliest connections and pertinences have often been lost irretrievably, as they have been even for some of the expressions of our children at so early an age. But the examples cited (and the study by Whitehorn and Zipf) justify the conviction that schizophrenic "irrelevance" is not irrelevant to the patient himself and could become relevant to the audience to the extent to which it were possible to find the clues to his private and self-contained metaphorical transfers.

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DISCUSSION

J. Louise Despert, M. D. (New York, N. Y.).—The work of Dr. Kanner on infantile autism points to the need for a revision of the concept of schizophrenia. The analogies of his cases with some of the schizophrenic children are obvious; and the disease process seems to be the same. Thus, regression as a fundamental diagnostic indication would appear less valuable than has been previously reported.

The paper just read by Dr. Kanner raises another fundamental issue, and one which has been grossly neglected in spite of numerous studies of language and thinking in the schizophrenias. I refer to the affective substratum of language function and development. As reported by Dr. Kanner, the majority of his autistic children come from "psychometrically superior though literal-minded and obsessive families," and it can be assumed that there was a profound disturbance in the parent-child emotional relationships from the earliest stages of the infants' language history. Another observation, made on the speech and language function of schizophrenics, undoubtedly applies to these autistic children, although I do not recall that it has been reported; and again this is related to the disturbance of the parent-child emotional relation: in all young schizophrenic children speech presents peculiarities which, however varied, have one common characteristic—the voice lacks that emotional tone which stamps the individual as himself and unlike others; it is often described as unnatural, peculiar; it lacks expressiveness and often does not seem to belong to the personality.

Pichon, in his studies of language development, has pointed out that the first and foremost requirement for language to arise and develop is what he calls "la fonction appetitive"—the appetition for language. This is indeed a very apt term, meaning literally "the direction of desire towards an object or purpose" (Oxford Dictionary); it expresses the urge of the individual to express himself in language symbols and phonetic signs for purposes of communication. Appetition for language is manifested in infants long before language is constituted and sentence formation in its most rudimentary form appears. In fact, it can be said that it precedes the first phonetic forms and represents the first stage of speech as a means of communication. This appetition for language is conspicuously lacking in the autistic and schizophrenic child, even though coincidentally the child may have acquired an extremely large vocabulary. Appetition for language is in close association with, if it does not determine, the emotional tone of speech.

Dr. Kanner, in his careful observation and analysis of the semantics of autistic children, has indicated that the transfer of meaning is accomplished through substitutive analogy, generalization and restriction. It must be stressed that these mechanisms are all operating in the course of language development in the young normal child. They are, however, so transitory as to pass almost unnoticed. They are noted before that structuralization of language which permits adequate identification of individual symbols. When the normal 1½ to 2-year-old child says "Mummy" as he handles some familiar object which he identifies with his mother, he uses analogy through restriction. It is not very long, however, before he readily makes the distinction between the two. It is highly probable that it is the very emotional experience involved in his relation to his mother as love object which makes it possible to establish the distinction between individual symbols.

The autistic child, even to a greater degree than the schizophrenic child, does not have adequate human relationships on an emotional basis. Five-year-old Anthony, who is said to be fond of his grandmother, has probably not achieved with her a full love object relation. It is as though he were identified with part of the love object rather than the whole, which the normal 1½-year-old very rapidly achieves. Why "55" was selected by Anthony from the many possible symbols associated with his grandmother probably cannot be ascertained, but it is quite likely that a personal experience of the same nature as that reported in the case of the "Peter eater" of Paul is involved. Excessive

affect binding of the symbol in terms of a personal experience is probably accountable for these "irrelevant and metaphorical" language expressions. They are frequently found in the records of schizophrenic children who, contrary to the autistic children, had developed a language structure prior to the onset of their illness. When 8-year-old Joan refers to her father as "the man who sleeps here and has bacon and eggs in the morning that man," or when 4-year-old Peter, referring to his grandmother, says "there is another kitchen on the other side," these two schizophrenic children exhibit apparently irrelevant and metaphorical language expression.

In an earlier publication I have reported that in the history of schizophrenic children there were found early dissociative phenomena which were in the nature of a disturbed integration of language-sign and language-function. This was particularly true of the schizophrenic children with insidious onset. This group, incidentally, is the one presenting the greatest similarity with the children described by Dr. Kanner as autistic. Neologisms which are also frequently found in the schizophrenic children's records represent further complexities in the elaboration of apparently irrelevant symbols. Indeed, an important part of the treatment of schizophrenic children includes the breaking down of these symbol elaborations.

Dr. Kanner brings out the contrast between the metaphorical language of infantile autism and the language of poetry and mythology. The essential difference would be that in the autistic child's language there is lacking the intention to make himself understood. I wonder, however, whether the autistic child is not himself enmeshed in his own symbols, for while 4-year-old Jay refers to himself as Blum, he does not say, and probably cannot say, *"I am* Blum" or "I am Blum *because*." In so far as human relationships are concerned, the autistic child lives in an emotional vacuum; language symbols have emerged with overwhelming affect charges which have seemingly blocked the emergence of other symbols. Such experiences are possible because the binding power of free flowing affect characteristic of the normal child is lacking. It is highly significant, for instance, that the "I not I" distinction is not established in the autistic child, as it is early in the development of language in the normal child, and Dr. Kanner pointedly selects the pronominal reversal as an almost pathognomonic sign of infantile autism. Since the appearance of the first-person pronoun in language development shortly follows that stage of individuation which corresponds to the child's consciousness as one, whole, and apart from others, the importance of this sign cannot be overemphasized.

GLUCOSE TOLERANCE IN CHRONIC ALCOHOLISM[1]

SAMUEL C. KARLAN, M.D., FLUSHING, N. Y., AND CLARENCE COHN, M.D., CHICAGO, ILL.

Since the incidence of alcoholic intoxication has been increasing markedly in recent years, the writers considered it of value to investigate some aspects of carbohydrate metabolism in 50 cases of chronic alcoholism.

METHOD

A chronic alcoholic was considered to be any person who drank to such a degree that it interfered with his work and home life and who could not stop drinking. The case material presented was obtained from the neuropsychiatric section of a station hospital. Although some of the patients were admitted while intoxicated, the laboratory examinations were performed after the effects of the alcohol had subsided. Each patient was given an intravenous glucose tolerance test utilizing Soskin's technique(1). The patients were prepared for the study in accordance with the recommendations made by Conn(2), consisting of a diet containing at least 400 grams of carbohydrate daily for several days prior to the test. A 50% solution of glucose was given intravenously in the dosage of ⅓ gram of glucose per kilogram of body weight. Micro-blood sugars were performed on capillary blood by the Somogy-Shaffer-Hartmann(3, 4) technique, utilizing a zinc hydroxide precipitation of proteins(5). This method yields blood sugars which approximate true blood sugar values with normal fasting values ranging between 60 and 90 mgm%. These values are approximately 20 mgm% less than values given by tungstic acid precipitation methods, the commonly used technique.

RESULTS

In this test, the blood sugar should return to a level not higher than 5 mgm% above the fasting value within one hour. We considered any value higher than that an evidence of decreased tolerance or possible liver disease. If the blood sugar fell below 50 mgm% during the course of the test, or if the blood sugar fell very rapidly, we considered it evidence of increased tolerance. Of our 50 cases, 22 showed evidence of increased tolerance (Table I). Five cases showed decreased tolerance (Table II). The

TABLE I

GLUCOSE TOLERANCE TESTS OF ALCOHOLICS WITH INCREASED TOLERANCE

The values given are true blood sugars with normals about 20 mgm less than standard values

Case No.	Fasting	½ hour	1 hour	1½ hours	2 hours	2½ hours	3 hours
1.....	64	55	50	38	47	57	60
2.....	62	91	66	61	49	69	71
3.....	60	100	49	41	44	41	50
4.....	55	110	64	58	56	42	45
5.....	61	105	90	45	30	48	42
6.....	68	48	60	68	48	45	40
7.....	66	133	78	41	40	45	46
8.....	36	71	44	41	44	36	22
9.....	47	93	57	63	68	50	53
10.....	67	148	82	60	48	61	68
11.....	90	133	71	49	42	53	55
12.....	81	135	72	56	47	54	57
13.....	81	137	101	92	61	65	48
14.....	74	163	100	63	47	46	52
15.....	78	142	83	55	46	65	66
16.....	82	134	59	61	65	38	49
17.....	71	218	107	90	68	47	40
18.....	73	44	58	67	71	60	55
19.....	73	58	51	64	71	73	71
20.....	84	67	63	73	76	76	81
21.....	77	157	96	66	56	49	89
22.....	65	67	70	71	78	..	..

TABLE II

GLUCOSE TOLERANCE TESTS OF ALCOHOLICS WITH DECREASED TOLERANCE

Case No.	Fasting	½ hour	1 hour	1½ hours	2 hours	2½ hours	3 hours
1.....	101	187	169	125	102	84	56
2.....	84	175	121	86	69	70	71
3.....	87	160	126	97	63	64	59
4.....	50	118	94	87	70	65	55
5.....	56	142	98	78	59	80	74

[1] This work was done while the writers were on active duty in the Army of the United States at Boca Raton Field, Florida.

cases were classified into 17 psychoneurotics, 26 inadequate personalities and 7 mental defectives on the basis of psychiatric and Rorschach examinations (to be described in a future paper). Table III describes the

TABLE III

GLUCOSE TOLERANCE DISTRIBUTION AMONG VARIOUS TYPES OF ALCOHOLICS

	Glucose tolerance		
	Increased	Decreased	Normal
Psychoneurotic alcoholics ..	13	0	4
Inadequate personalities ...	5	3	18
Mental defectives	4	2	1
All cases	22	5	23

distribution of the glucose tolerance reactions among our various categories of patients. It is to be noted that the increased tolerance occurred mainly in the psychoneurotics and the mental defectives.

COMMENT

Increased glucose tolerance has not been previously observed in chronic alcoholics. Tucker and Porter(6) observed hypoglycemia in 4 cases immediately following acute intoxication but attributed it to some contaminant in the liquor consumed. Voegtlin(7), using the oral test, found decreased glucose tolerance in alcoholics. Decreased glucose tolerance would be expected in many alcoholics as this is a frequent sign of impaired liver function. However, this finding was observed in only 5 of our cases. Other liver function tests were done in 3 of these cases but yielded no evidence of impairment of hepatic function. Because increased tolerance occurred so frequently in our psychoneurotic alcoholics, this test was performed on about 100 other cases of psychoneurosis who were not alcoholic. Only 7 cases of increased tolerance were seen in this group. It does not appear therefore that psychoneurotic symptoms could be responsible for this finding.

We cannot definitely explain why increased glucose tolerance and hypoglycemia should occur so frequently in chronic alcoholics. Psychiatric patients of all types frequently show deviations in metabolic tests. In addition, dietary deficiencies associated with alcoholism are at times etiologic factors in the impairment of liver function and may lead to deviation of the hepatic regulation of the blood sugar. We do not however believe that hypoglycemia leads to alcoholism since the patients drink at all times, after meals as well as before them. It is known that hypoglycemia gives rise to feelings of faintness, restlessness and hunger. This faintness and restlessness have concomitant mental symptoms which aggravate the inadequacy and insecurity of the alcoholic and thereby increase the desire for alcohol. Alcohol, being a source of energy, can relieve the hunger to some degree. In this way, the hypoglycemic tendencies can set up a vicious cycle which will increase the addiction considerably.

Acute alcoholic states have long been treated with carbohydrate infusions among other measures. In view of our findings with respect to glucose tolerance, it would be well to watch the chronic alcoholic as well and prescribe frequent feedings to prevent any hypoglycemia that might occur.

SUMMARY

Glucose tolerance studies in 50 chronic alcoholics showed decreased tolerance in 10% of the cases and increased tolerance in 44% of the cases. The incidence of hypoglycemia and its role in the aggravation of tension states common in alcoholism should be considered in its therapy.

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REPORTS OF COMMITTEES

The following reports of committees were presented to the Association and approved by it during the convention sessions in Chicago, Illinois, May 27-30, 1946.

Report Concerning American Board of Psychiatry and Neurology

May 27, 1946

The Council of The American Psychiatric Association in 1945 asked that its representatives on the American Board of Psychiatry and Neurology make a study of the work of the Board and report thereon to this Association, since dissatisfaction existed and a proposal for a separate Board had been considered.

The representatives of The American Psychiatric Association on the Board in 1945 were John Murray, Karl Bowman, Harold Palmer and John Whitehorn. Three of these, Palmer, Murray and Whitehorn, held a committee meeting at Philadelphia on November 18, 1945, just two days before Dr. Palmer's death. The report resulting from that meeting was presented to the Council of The American Psychiatric Association, December 18, 1945. It presented several suggestions for changes in Board practice, which were afterward presented to the Board by the President of this Association, Dr. Karl Bowman, at the meeting of the Directors of the Board, December 19, 1945. Some of these suggestions were accepted immediately by the Board, for example, the policy was adopted of making a brief annual report to the three organizations represented on the Board. Such reports have recently been sent, in accordance with this policy, to The American Psychiatric Association, the American Neurological Association and the American Medical Association.

A new set of officers was elected by the Board. Dr. Francis J. Braceland was elected Secretary-Treasurer, who serves in effect as the executive of the Board. Because I was elected President of the Board, I wish to make it clear that in making this report at this time I am not doing so officially as President of the American Board of Psychiatry and Neurology but only as a member of The American Psychiatric Association representation on the Board. The other representatives of this Association are now Karl Bowman, Francis Braceland and George H. Stevenson.

After careful consideration by a committee and by correspondence, the Board adopted at a meeting in Chicago last Thursday, May 23, 1946, a number of changes in by-laws concerning its policies and procedures in regard to certification. It is not feasible to make a complete report at this time. A complete statement will soon be ready. I shall mention here a few of the changes.

The Board decided to arrange for different examinations for those seeking certification in psychiatry and in neurology, and to increase the training requirements of those seeking double certification.

The Board has also drawn up brief statements of the approved types of training programs for psychiatric and for neurological training. The present specifications read as follows:

Section 6. Classes of Applicants

After January 1, 1947, no certification will be granted without examination.

Class A

Applicants who graduated before the foundation of this Board (1934) will not be held to the strict interpretation of the published requirements in formal graduate training. Under such circumstances the Board will consider the training and experience of the applicant and decide whether or not he will be admitted to the examination.

Class B

Candidates graduated from a medical school after 1934 shall fulfill the following special requirements:

Professional Education

1. Graduation from a Medical School in the United States or Canada approved by the Council on Medical Education and Hospitals of the American Medical Association. In the case of an applicant whose training has been received outside the United States and Canada, his credentials must be satisfactory to the afore-mentioned Council and the Advisory Board for Medical Specialties.

2. Completion of a year's interneship approved by the same Council in general medicine, general surgery, pediatrics, or a rotating internship.

3. The nine-months wartime interneships, assistant residencies or residencies will be accepted as an equivalent of one year.

Special Training

(To be put in force January 1, 1948)

Admission to the examination for certification in psychiatry or neurology requires a total experience of not less than five years.

There shall be a period of three years of full-time study in institutions recognized by the Council on Medical Education and Hospitals of the American Medical Association, and approved by this Board as competent to provide training in psychiatry or neurology. A candidate may submit to the Board evidence of special training in psychiatry or neurology not covered in these specifications, for its evaluation and approval.

In addition to three years of training under supervision, each candidate should have two years of clinical practice with major responsibility for the care of patients.

This training for psychiatrists should include clinical work with psychoneurotic and psychotic patients, combined with the study of the basic psychiatric sciences, medical and social psychology,

psychopathology, psychotherapy, and physiological therapies, including a basic knowledge of the form, function and pertinent pathology of the nervous system. This training should be supervised and guided by teachers competent to develop skill and understanding in the utilization of such basic knowledge in dealing with patients. Mere factual knowledge is not sufficient. This training period should include instruction in the psychiatric aspects of general medical and surgical conditions and the behavior disorders of children and adolescents sufficient to develop practical ability to direct the treatment of such conditions. It should also include collaborative work with social workers, clinical psychologists, courts and other social agencies. The training program of the candidate for certification in psychiatry should include sufficient training in clinical neurology to recognize and to evaluate the evidences of organic neurological disease.

The training for neurologists should be based on clinical work with adults and children with neurological disorders, including the neurological complications of medical and surgical conditions. This shall be combined with study of the basic neurological sciences, neuroanatomy, neurophysiology, neuropathology, and neuroroentgenology. This training should be supervised and guided by teachers competent to develop skill and understanding in the utilization of such basic knowledge in dealing with patients. Mere factual knowledge is not sufficient. This training should include sufficient clinical psychiatry to enable the candidate to recognize and evaluate the common psychiatric reactions.

Candidates seeking certification in both neurology and psychiatry or supplementary certification in one after being certified in the other, must submit evidence satisfactory to the Board of additional two years of full-time basic training in the supplementary specialty.

SECTION 7. TRAINING IN THE ARMED FORCES

Credit will be granted for one year of basic training in the psychiatric or neurologic services of the Army, Navy, Public Health Service and Veterans Administration. Further credit for basic training will be granted only if the training has been received in an institution recognized by the Council on Medical Education of the American Medical Association and approved by this Board. Time beyond one year spent in an approved psychiatric or neurologic department of the above Government agencies may be credited to experience, providing the candidate has been regularly assigned to a service in neurology or psychiatry.

Respectfully submitted,
JOHN C. WHITEHORN, M. D.

REPORT OF COMMITTEE ON INTERNATIONAL RELATIONSHIPS

April 30, 1946.

To the Council of The American Psychiatric Association:

As the retiring chairman of your Committee on International Relationships, I have to report only lack of progress in the work of that Committee. I offer no apologies, for there have been various obstacles, of which perhaps the most important has been the lack of a continuing organization to carry out the functions of your committee. I think that its functions can be well realized only through a good continuing organization with its adequate personnel, and I look forward to the assumption of the work by the projected Psychiatric Foundation.

It appears to me indubitable, that the practical applications of psychiatric knowledge can be important to the objective of stabilizing world affairs and maintaining peace. I think that the first step indicated in such direction is to further friendly and understanding interrelationships among psychiatrists world-wide. If, as I hope, the Psychiatric Foundation will become recognized throughout the world as the authoritative clearing house for the practical applications of psychiatric knowledge, then it should have the friendly interest and respect of psychiatrists everywhere. This condition should promote friendly understanding and agreement. Thus the Foundation should bring psychiatric wisdom to bear internationally.

I have no silly thought that the accomplishment of the objectives of your committee can be other than slow. The representatives of other fields of endeavor will each regard that he holds the key to world stability and lasting peace. There will doubtless be a tremendous lag in the recognition that psychiatry has something useful to offer. World War II has fortunately given an impetus to such recognition. The Psychiatric Foundation should be the vehicle for the further extension of psychiatric education, which latter, albeit a long time endeavor, seems to offer the best promise. I think that the functions of your Committee on International Relationships should become an important activity of the Psychiatric Foundation, with the reasonable expectancy of a degree of success.

I would at this time express my appreciation for the support given me, as chairman, by the members of your committee. While I do not offer apologies for the failure of better accomplishment, I nevertheless deeply regret such failure. My very best wishes to Doctor George H. Stevenson, whose recommendations led to the appointment of this committee, upon his succeeding me as its chairman.

GLENN MYERS, M. D.

REPORT OF THE DIRECTOR OF THE PSYCHIATRIC PERSONNEL PLACEMENT SERVICE

To the Council of The American Psychiatric Association:

I have the honor of presenting herewith the report of the Psychiatric Personnel Placement Service for the period ending May 15, 1946.

A PLACEMENT SERVICE IS ESTABLISHED

It is unnecessary to go into detail concerning the reasons for organizing a Placement Service for psychiatrists. Suffice it to say, toward the end of the summer of 1945, it became increasingly evident that physicians in the armed forces, who were interested

in obtaining further training in psychiatry, or in finding positions in this field, upon their return to civilian life, would require advice and assistance. The idea of a joint committee of The American Psychiatric Association and the National Committee for Mental Hygiene for this purpose was formulated. After preliminary discussions, a definite plan of operation, including a tentative budget, was evolved, agreed upon, and approved by the governing bodies of these two organizations. Each of them appointed a committee to function together as a joint Advisory Committee on Psychiatric Personnel Placement, and the special project known as the Psychiatric Personnel Placement Service came into being. It began operating on December 11, 1945.

MEMBERSHIP OF THE ADVISORY COMMITTEE

The Advisory Committee is composed of the following members: Dr. Samuel W. Hamilton, Dr. Arthur H. Ruggles, and Dr. Howard W. Potter, representing The American Psychiatric Association; Dr. John D. Griffin, representing Canada and also The American Psychiatric Association; and Dr. Frank Fremont-Smith, Dr. Frank J. O'Brien, Dr. Frederick W. Parsons and Miss Mildred Scoville, representing the National Committee for Mental Hygiene. Dr. Fremont-Smith is the Chairman and Dr. Hamilton, Vice-Chairman.

MEETINGS OF THE ADVISORY COMMITTEE

The Advisory Committee has held meetings in New York on October 10, November 24, and December 19, 1945; and on February 15 and May 10, 1946. There has been practically a full attendance of the members at all of these meetings.

OBJECTIVES

The primary objectives of the Placement Service, as outlined by the Advisory Committee, are: (1) to list the interests and qualifications of psychiatric personnel separated from the armed forces; (2) to assist veteran physicians interested in psychiatry in finding suitable posts and training opportunities in which they can be useful and happy; and (3) to encourage the creation of new positions and the increase of training facilities.

SCOPE OF ACTIVITIES

The Placement Service, under the guidance of the Advisory Committee has endeavored at all times to include within the scope of its activities the needs and interests of the two organizations which it represents.

From the very beginning, our attention has been focused upon medical officers returning to civilian life from the Army and Navy. We have found time, however, also to assist the relatively few non-veteran doctors who have consulted us. Nor have we limited our efforts to those physicians who belong to any one particular medical group. In this connection, it is interesting to note that a majority of the applicants in our files have not as yet identified themselves with The American Psychiatric Association. They constitute, therefore, a large reservoir of prospective members for this organization.

The Advisory Committee decided that the Placement Service should also be extended to Canada, and we are working in close cooperation with Dr. John D. Griffin, Medical Director of the Canadian National Committee for Mental Hygiene. We have had a few applications from Canadian psychiatrists for placement in positions or training, and we have seen several in personal interviews when they have visited New York.

The Placement Service has concerned itself exclusively with psychiatrists and physicians interested in psychiatry. It has been the hope of the Advisory Committee that it will be possible at a later date to enlarge the scope of its activities and include the placement of clinical psychologists, psychiatric social workers, and psychiatric nurses, as well as the stimulation of training opportunities in these various fields. If the Placement Service, however, is to expand in this direction, extra funds will be needed. The addition of trained personnel representing each of the groups mentioned, plus clerical assistants, to the staff of the Director of the Placement Service will also be required. It is much too early for this at the present time but we should at least be thinking along these lines.

PUBLICITY

Through the Committee on Public Education of the American Psychiatric Association, of which Dr. C. Charles Burlingame is Chairman, the news that the Placement Service had been established was released and given wide publicity. Notices concerning it appeared in all of the leading professional journals, as well as in the official medical bulletins and publications of the Army and Navy. The announcement was also sent to all members of the American Psychiatric Association in the United States and Canada.

The response was excellent, and almost immediately we began to receive applications from numerous physicians seeking placement. Many hospitals in all sections of the United States also listed their vacant positions with us, and asked our help in filling them.

In addition to the above, a statement describing certain aspects of the Placement Service, and the problems that had been encountered, was released to the newspapers for publication on May 2. This was not particularly satisfactory, however, since the material submitted was so condensed by the editors that it was hardly recognizable when published.

ORGANIZATION

With respect to the various problems involved in the management of the office, it is sufficient to state that an organization has been set up which is functioning very smoothly. I should like to point out, however, that a tremendous amount of detailed clerical work is necessary in handling the routine

business of the Placement Service. The office force has so far been able to take care of the rather heavy load and to keep everything current.

PERSONAL INTERVIEWS

One of the most important duties of the Director of the Placement Service is to interview physicians who come to the office seeking information concerning positions and training opportunities in psychiatry. This has kept us quite busy, 225 doctors having consulted us in person. Many of these men, after several years in the Army or Navy, have been somewhat confused as to what course of training they should pursue and the type of position for which their experience best fits them. In some instances, they have not known which way to turn, so to speak. During these interviews, we have discussed their problems with them freely, have given them advice on various personal matters, have answered all sorts of questions pertaining to psychiatry, and have helped them plan and map out their careers in this specialty. Whenever we have felt that an individual was not temperamentally or otherwise adapted to enter the field of psychiatry or continue in it, we have frankly told him so. We have endeavored particularly to direct promising young physicians to the opportunities which await them in our better state hospitals. All of the men we have seen have been most grateful for the time we have spent with them, and they are unanimous in their opinion that the Placement Service fills a great need.

MEETINGS ATTENDED

In conjunction with my duties as Director of the Placement Service, I have attended a number of medical meetings and conferences. During these meetings, the functions of the Placement Service, and what it has to offer, were pointed out to the assembled physicians individually and in groups. Standards and methods of training in psychiatry were discussed at great length. Many physicians who desired to file applications with the Placement Service were interviewed. Most important of all, however, were the talks I had with Superintendents of State Hospitals concerning the difficulties they have experienced in securing medical personnel for their staffs. Indeed, the shortage of doctors in state hospitals throughout the country constitutes a major psychiatric problem which must be solved.

SURVEYS CONDUCTED

In order to have a complete file of the positions and training opportunities available in psychiatry, a survey of the entire field was one of our first undertakings.

Letters were sent to the medical directors of 300 general and State Hospitals, to 340 private mental hospitals, and to 75 Community and Mental Hygiene Clinics. They were asked to indicate on a special form, which we devised for this purpose, the vacant positions on their staffs and the training programs in effect, together with salaries paid, professional requirements, and certain factual data about the hospital or clinic. The response has been excellent, and very attractive opportunities are almost daily being listed with us.

Letters were also sent to the Deans of 78 Class A medical schools requesting information concerning basic courses, residencies, post-graduate courses, and fellowships in psychiatry, child guidance, and psychosomatic medicine, as well as teaching positions, which might be available. The returns have been slow in coming in. In fact, only one-fourth of the Deans have given us the data asked for.

FOUNDATIONS VISITED

In addition to the above, several foundations located in New York were visited early in the year, the purpose being to secure information as to what they were offering in the way of fellowships in psychiatry, and to stimulate them to increase the number they were supporting. The different aspects of psychiatric education were presented in detail, and the need for more and more fellowships in this field, especially to assist physicians being released from the armed forces, was pointed out. The necessity for establishing and maintaining adequate training programs in state hospitals was also emphasized. All of the foundations were quite receptive, but nothing concrete in the way of commitments was obtained from them. Nevertheless, it was felt that much good was accomplished by the visits, inasmuch as they are now familiar with the problems which psychiatry is currently facing.

TOTAL OPPORTUNITIES AVAILABLE

As a result of the surveys, which we have just mentioned, we now have listed in our files a total of 995 opportunities in psychiatry, of which 769 are positions and 226 are training.

POSITIONS

Approximately three-fourths of the available positions listed in our files are in state hospitals.

Of these, 85 per cent are in the junior and intermediate brackets. The salaries paid in these grades in most hospitals are quite low for the amount of training and experience required. In a few instances, however, the rate of pay is high, with no special qualifications being necessary. Some of the hospitals include full maintenance for the physician and his family in addition to the salary. Others charge a small sum for subsistence and quarters. While providing maintenance adds to the annual income, it is often an undesirable feature. The quarters furnished are frequently inadequate and unattractive, and most physicians with whom we have discussed the matter prefer living on the outside. In many of the states, no provision is made for the maintenance of families of physicians, and the physician himself is required to live in the hospital, with no extra allowances if he does not. He is forced to find and maintain a home for his family in the nearby community, which is often some distance away. This

adds to the acute housing problem which exists throughout the entire country at the present time. It is difficult to see how state hospitals can attract the best men under these circumstances. On the other hand, there are some excellent positions in state hospitals in the higher grades with good salaries and splendid opportunities for professional advancement.

Only one-fourth of the positions listed are in activities outside of state hospitals. A majority of these are in child guidance clinics and private hospitals, while the remainder cover a wide range of possibilities. The pay offered in these positions, in most instances, is adequate, and it is frequently left open, so that the employer may adjust it to the qualifications and experience of the individual.

It should be mentioned that this tabulation does not include the large number of openings in psychiatry with the Veterans Administration. Nor does it represent anywhere near the total number of positions available to psychiatrists throughout the country. It is hoped that in the very near future we shall be able to conduct a much more complete job survey of the entire United States than we have previously attempted.

TRAINING OPPORTUNITIES

Of the training opportunities listed, 65 per cent are residencies in state hospitals.

Although many of our state hospitals are approved for residency by the American Medical Association and the American Board of Psychiatry and Neurology, the training program which they offer is, in many instances, hopelessly inadequate, and the residents receive little or no actual instruction and supervision. This is partly due to the fact that Clinical Directors and Senior Physicians in state hospitals are so bogged down with routine paper work and red tape that they have very little time to devote to teaching, and partly to the attitude of a few Superintendents who show little or no interest in the problem. Then, too, most state hospitals are isolated and have no affiliations with medical schools, general hospitals, or teaching centers. Under these circumstances, state hospitals cannot hope to appeal to young physicians who are interested primarily in obtaining good training in psychiatry. It is this matter of training, or rather a lack of it, which has proved to be our major stumbling block in filling vacancies in state hospitals. It should be emphasized, of course, that many progressive state hospitals do have excellent training programs, and offer unequaled facilities and advantages for acquiring psychiatric knowledge. Residencies in such hospitals are in great demand.

Only 35 percent of the training opportunities in our files are in medical schools and hospitals connected with them. Most of these are fellowships, internships, externships, refresher courses, and post-graduate courses, while residencies are few and far between. In fact, medical schools and their associate hospitals have just about reached the saturation point in terms of the number of residents they can adequately train and supervise.

It should be mentioned that our list of training opportunities is by no means complete, and it does not include residencies with the Veterans Administration. As a matter of fact, the program of training in psychiatry which the Veterans Administration has planned, and which is now in operation in various teaching centers, is gaining momentum almost daily. The Veterans Administration offers the only real hope for providing the necessary psychiatric training for large numbers of physicians.

TOTAL NUMBER OF APPLICATIONS

A total of 751 physicians seeking opportunities in psychiatry have contacted the Placement Service, either by letter or personal interview. Breaking down this figure we find that only 188 of them are interested in obtaining positions, while 563 desire some form of training.

Application forms, designed to give us information as to the background or the individual and the probable date of his release from the service, have been mailed to all physicians who have written in, and 440 of them have been returned.

REQUESTS FOR POSITIONS

Approximately 90 per cent of the applications for positions in our files are for employment outside of state hospitals.

A majority of these requests are for part time work, with demands for opportunities in private practice, positions in child guidance and mental hygiene clinics, and teaching appointments following in close succession.

Only 10 per cent of our applicants are interested in positions in state hospitals, a fact of very serious import.

Practically all of the requests for positions are quite naturally from physicians who were qualified psychiatrists before entering the armed forces. A few, however, have come from physicians who wish to secure a good paying job which offers an opportunity for training at the same time.

REQUESTS FOR TRAINING

Three-fourths of the requests for training we have received are for residencies, with the remaining one-forth distributed between fellowships, refresher courses, and post-graduate courses in the order named.

The length of time specified for residencies and fellowships is from one to three years, for refresher courses three to four months, and for post-graduate courses eight months to one year.

Approximately 98 per cent of the medical officers who desire training state that they wish to receive it in a medical school or a teaching hospital connected with it. Only 2 percent of them indicate a willingness to accept a residency or any other type of training in a state hospital.

It is interesting to note the branches of psychiatry specified in the requests for training. General neuro-psychiatry is very much in the foreground,

while psychosomatic medicine, psychoanalysis, psychotherapy of the neuroses and psychoneuroses, and child guidance are all strongly emphasized.

A majority of the requests for residencies and fellowships are from younger men who have been exposed to psychiatry in the military services, and who wish to continue in this specialty. A number of these, however, are from physicians who are trained primarily in medicine, but who, through their war experiences, have become interested in entering the field of psychiatry. It should be pointed out that the medical officers in these two groups are several years older on an average than trainees before the war. This means that medical schools, hospitals and teaching centers must waive their requirements as to age and make an exception in the case of veteran physicians accepted for training.

The requests for short refresher courses and for longer post-graduate courses are mostly from physicians who were experienced psychiatrists before the war. They desire either to brush up in the basic sciences in preparation for their examination for certification by the American Board of Psychiatry and Neurology, or they wish to learn of the new developments in the diagnosis and therapy of nervous and mental diseases since they have been in the service. A few of these requests, however, have come from various medical and surgical specialists who are seeking a better understanding of emotional and psychosomatic problems, in order that they might more adequately treat the patients under their care.

A majority of the medical officers who have requested training state that it is necessary for them to receive adequate remuneration along with it. Most of them are married and a good many have children. In other words, they have acquired added responsibilities. They are anxious to finish their training after release from the service, but they are faced with the problem of having to support a family. Unfortunately, the average pay of a residency or fellowship scarcely permits them to do so. Some of these men, therefore, will be lost to psychiatry because of economic reasons. It should be strongly emphasized, however, that the men who are really interested in becoming competent psychiatrists are willing and stand ready to make almost any financial sacrifice, even to the point of digging into their savings, if they can secure top-notch instruction and training. As a matter of fact, many of them have included statements to this effect in their application forms in answer to the question concerning minimum pay acceptable. We should do all we can, therefore, to stimulate the various activities engaged in training to raise the pay of residents and increase the stipends of fellowships.

CORRELATION BETWEEN REQUESTS, JOBS AND TRAINING

Let us now correlate the requests for positions and training in our files with the opportunities for the same which have been listed with us. This reveals the following interesting and significant facts:

1. There are twenty times as many jobs in state hospitals as there are applications for them;

2. There are fifty per cent more applications for positions outside of state hospitals than there are vacancies in extra-mural activities;

3. There are ten times as many approved training residencies available in state hospitals as there are applications for them;

4. There are eighty per cent more requests for training in medical schools and teaching hospitals connected with them than there are training openings available in these facilities.

ROUTINE USED IN PLACEMENT

We shall not describe the routine which we are using in the office in the placement of physicians who have filed applications with us. An endeavor is made to give each applicant exactly what he desires in the way of a position or training. This is obviously impossible in every instance, because there are so many factors involved, and so many variables which must be taken into consideration. Although it may appear simple and easy on the surface, the task of matching requests with opportunities available is actually a very difficult one.

It should be mentioned in passing that the Placement Service does not necessarily recommend or endorse the physicians it refers to various activities. It is left up to the employer or training facility to investigate the qualifications of the applicant, if they consider it necessary. Every attempt is made, however, to refer only those candidates for a particular position or training opportunity who can meet the requirements as laid down.

REFERRALS MADE

In spite of the difficulties encountered, we have made referrals for positions or training opportunities in the case of the 256 physicians who have indicated in their applications that they will be released from the Army or Navy up to July first. We usually give the applicant three possibilities to choose from in each referral. The other 184 physicians whose applications we have on file are still on active duty, and will be separated from the service between July 1, 1946 and January 1, 1947. We have no idea as to when the remaining 311 physicians in our files will be released from the armed forces. These will be handled in due time. In other words, we are now current in our attempts at placement.

RESULTS

In evaluating the results that have been accomplished, it must always be borne in mind that the Placement Service is not prepared to offer the world, and that it has its limitations. There will probably be at all times more requests for positions and training than we can take care of, and we shall always experience difficulty in giving applicants exactly what they desire.

During the little more than four months covered by this report, we have succeeded in placing 20 per cent of the physicians who have filed applications with us, and who have become available for appoint-

ment by virtue of their release from the armed forces. At first glance, this may seem like a small number. It is quite satisfactory, however, especially in view of the fact that most of the positions and training opportunities we have listed are in state hospitals, and since a majority of our applicants are interested only in extra-mural activities. The truth of the matter is that we cannot estimate the results accomplished in terms of the number of physicians we have actually placed. The Placement Service is not an employment agency in any sense of the word. Instead, it functions merely as an aid to placement by informing applicants just where the openings are.

It has already been pointed out that many physicians have been referred to attractive positions, and many have been started off on the right foot, so to speak, in training. In addition, many have been counseled in personal interviews, and we have been instrumental in relieving the frustration and anxieties of many who have sought our advice. We have also discussed personnel problems with various employers, and have suggested improvements in training programs. The accomplishments as a result of these efforts are intangible and cannot be measured objectively. They are nevertheless of great importance. It is very gratifying to report that we have numerous letters on file from applicants and employers both expressing their gratitude for the service we have rendered them.

PROBLEMS TO BE SOLVED

An analysis of the material in the files of the Placement Service indicates the problems to be solved if psychiatry is to make the most of its opportunities. These are:

1. Young physicians are fighting shy of state hospitals. This means that the acute shortage of psychiatrists, which now exists on the staffs of state hospitals, is not likely to be relieved, unless a determined effort is made by all of the states to attract the best calibre of men.

2. Our major difficulty in filling vacant residencies in state hospitals has been the lack of adequate supervision and training which they offer. The standards of training, therefore, now in effect in state hospitals must be improved, and new training programs instituted where none exist.

3. State hospitals must maintain a close liaison and affiliation with the nearest medical schools, wherever it is feasible to do so, and staff physicians should be given an opportunity to undertake postgraduate training at frequent intervals. This will tend to prevent professional stagnation.

4. All state hospitals to be constructed in the future should be located close to large communities rather than at a distance from centers of population in order to eliminate geographical isolation.

5. The salaries offered by state hospitals must be raised, and more living quarters provided for families. The whole question of maintenance for physicians and permitting them to live on the outside, with extra allowances, if they so elect, should be studied and investigated.

6. More paying positions for psychiatrists in activities outside of state hospitals are needed and must be created.

7. Psychiatry must make and execute effective plans for a vastly increased program of psychiatric education in order to take care of medical officers from the armed forces and other physicians who are currently seeking training appointments. To assist in this undertaking, all state hospitals and all Veterans Administration neuropsychiatric hospitals must be developed into training centers.

8. More teaching facilities for training students in the understanding and treatment of psychoneurotic, psychosomatic, and non-psychotic disorders are particularly needed. This will require the utilization of out-patient departments, as well as the medical and surgical services of general hospitals for training purposes.

9. The number of approved residencies and fellowships in all branches of psychiatry must be increased, and the stipends that go with them made more adequate, in order to meet the needs of veteran physicians with families who wish to complete their training.

10. There is a need for a considerable number of full time review or refresher courses in neuropsychiatry in order to help physicians prepare for their examination for certification by the American Board of Psychiatry and Neurology. These should be given at least twice a year.

CONCLUSION

In conclusion, I should like to express my sincere gratitude to the members of the Advisory Committee who have given so much of their time and thought to the problems of the Placement Service. I wish also to acknowledge my indebtedness to the Medical Director and the Division of Personnel of the National Committee for Mental Hygiene for the valuable assistance they have given me. Finally, it is my privilege to recognize with appreciation the work of the clerical staff in carrying on the routine activities of the Placement Service.

Respectfully submitted,

F. M. HARRISON, M. D.

PSYCHIATRIC PERSONNEL PLACEMENT SERVICE FINANCIAL STATEMENT

December 10, 1945 to April 30, 1946

RECEIPTS		
American Psychiatric Association	$3,225.00	
Carnegie Corporation	6,450.00	
EXPENDITURES		
As listed below	5,465.56	
Balance, April 30, 1046		$7,434.44

	Budget	Expenses	Budget to date
Salaries			
Dr. Harrison	$8,000.00	$3,146.64	$4,853.36
Mrs. Ziegler	2,000.00	732.48	1,267.52
Mr. Tausend	.....	584.00	— 584.00
Travel	2,000.00	363.02	1,636.98
Printing	75.00	38.49	36.51
Postage	100.00	212.48	— 112.48
Office Supplies and Expenses	75.00	156.78	— 81.78
Telephone and Telegraph	100.00	54.26	45.74
Letter Service and Shipping	200.00	139.41	60.59
Equipment	200.00	.....	200.00
Miscellaneous	150.00	38.00	112.00
Totals	$12,900.00	$5,465.56	$7,434.44

$3,225.00 due from A.P.A for next two quarters.

REPORT OF THE COMMITTEE ON PSYCHIATRIC SOCIAL WORK

Since no stated meeting was held in 1945, this report covers in brief summary some of the progress in the area of psychiatric social work during the final period of the war and the subsequent months.

I. Military social work. Through the cooperation of the Surgeon-General's Office with the Joint Committee of the War Services Office of The American Association of Psychiatric Social Workers and the National Committee for Mental Hygiene, much progress can be reported regarding the extension of the designation and use of military psychiatric social workers in the armed forces. Through the efforts of the Executive Secretary of the War Services Office, Mrs. Elizabeth Healy Ross, indoctrination courses were formulated for men and women in the army who were to be identified as psychiatric assistants and whose previous educational training did not qualify them to receive specification No. 263—the classification designated by the Adjutant General's Office for men and women with graduate degrees from schools of social work who have majored in psychiatric social work and/or men and women who were graduates of schools of social work in good standing who have had clinical psychiatric social work experience following their graduation.

II. In the latter part of 1945, the Executive Secretary of the War Services Office was appointed as Consultant to the Veteran's Administration. Following the submission of the Bill HR 4225, the Joint Committee met to consider ways and means of gaining some consideration for social workers to function as an integral part of veteran's medical and hospital service. Conferences were held with the Veteran's Administration personnel as a result of which the Joint Advisory Committee passed a resolution in October, 1945, recommending a revision of the bill calling for complete hospital and medical service in Veteran's Administration which would include social services.

III. Utilization of military psychiatric social workers and psychiatric aids in the Veteran's Administration. With the establishment of Veteran's Administration facilities for the care of veterans discharged on psychiatric diagnosis, both in-service and out-patient service units have been extended, with the selection of psychiatric social work personnel to be chosen essentially from the group of men and women having served in the armed services under the designation as above. Reports from over the country, coming directly from the men and women who were formerly in the armed services currently employed by Veteran's Administration, indicate a growing enthusiasm of the treatment possibilities in out-patient facilities now being developed.

IV. An article on Psychiatric Social Work in the Army and its Implications for Civilian Social Work, by Brig. Gen. William C. Menninger, Neuro-Psychiatric Consultant Division of the Office of the Surgeon-General. This article was prepared for presentation at the National Conference of Social Work, and covers in complete detail the utilization of military social workers by the Surgeon-General's Office. In this article General Menninger points the way to a more effective utilization of military psychiatric social workers who will return to civilian psychiatric practice in the care of veterans.

V. Influence upon civilian psychiatric social work

practice of the new psychiatric nomenclature. In the fall of 1945, following the publication of the Nomenclature of Psychiatric Diagnosis by the Psychiatric Division of the Surgeon-General's Office, mimeographed copies were sent to the Directors of all the schools of social work in the country in an effort to stimulate broader utilization of these dynamic concepts in the training of social workers. Already many of the schools of social work have included this in their instructional programs of courses in psychiatric social work.

Many pertinent army psychiatric social work papers have been published in various journals of social work. These articles highlight the effective use of the psychiatric social work in the psychiatric teams. The effectiveness of the therapeutic relationships in the treatment of neuro-psychiatric casualties during the war, has done much toward elaborating the effective inclusion into civilian psychiatric social practice of dynamic short-term treatment of the more accessible psychiatric problems.

VI. Closing of the War Services Office of the A.A.P.S.W.—December, 1945. This office which had rendered such outstanding service in cooperation with the Surgeon-General's Office Psychiatric Division, National Red Cross Psychiatric Section, was officially terminated. Funds, however, were made available for the writing of the history of the activities of the office throughout the war period with particular emphasis on the history of the military psychiatric social work done by the Executive Secretary, Mrs. Elizabeth Healy Ross. This history is now in preparation, and will be published in the near future.

VII. Psychiatric Social Work Office—National Committee for Mental Hygiene. At the Executive Committee meeting in February, 1946, the Director submitted a proposal which makes possible the continuation of the psychiatric social work office under the ægis of the National Committee for Mental Hygiene to replace the War Services Office of The American Association of Psychiatric Social Workers. The Joint Committee of the War Service Office and the National Committee for Mental Hygiene submitted a proposal outlining the functional needs for such a service. Action by the committee established the office of Psychiatric Social Work Consultant, who is to be responsible to the Medical Director. This action makes it possible to continue the extension of psychiatric and psychiatric social work activities over the country with sustained emphasis on the raising of standards of training and function of psychiatric social workers in clinical treatment units which include psychiatrists, psychologists and psychiatric social workers.

VIII. Activities of the Mental Health Unit—The Children's Bureau of the United States Department of Labor. Through the efforts of the Joint Post-War Committee and the staff of the Children's Bureau, a statement was prepared regarding the need for mental hygiene for children and youth. Copies of these recommendations were sent to state, health, welfare and education departments, recreation agencies, churches, teacher's colleges and nursery organizations throughout the country, through the efforts of Miss Elsa Castendyck, Acting Director of the Mental Health Unit of the Children's Bureau.

IX. Reprint Service. Through the action of the members of the Board of the Josiah Macy, Jr., Foundation, a proposal to underwrite the printing of a bibliography on the development and practice of military psychiatric social work was made possible. Copies of this bibliography were forwarded to schools of social work, and to the military psychiatric social workers in the armed forces. The distribution by the Josiah Macy, Jr., Foundation in cooperation with the National Committee for Mental Hygiene of the preprint articles made possible the receipt of the newly published psychiatric material by all of the military psychiatric social workers who were in service.

Through the efforts of the Joint Committee of the War Services Office and the National Committee for Mental Hygiene, a leaflet was prepared indicating the need for more psychiatric social work personnel in the post-war period. This booklet furnished details on training requirements and information regarding schools of social work where training could be obtained. It is interesting to report that at the beginning of the Spring Quarter at the New York School of Social Work, 121 ex-service men were admitted for training. Fifty thousand copies of this leaflet were distributed to the various psychological and psychiatric units in the armed services in an effort to interest more well qualified men and women to seek training in the field of psychiatric social work.

MARION E. KENWORTHY, *Chairman*,
RUSSELL E. BLAISDELL,
HELEN P. LANGNER,
ESTHER L. RICHARDS,
JOHN M. MURRAY.

REPORT OF THE COMMITTEE ON PSYCHIATRIC STANDARDS AND POLICIES

May 26, 1946.

In the past one hundred years The American Psychiatric Association has assumed the great responsibility of creating policies and standards for the care and treatment of the mentally ill as well as fostering research work for the prevention and treatment of mental diseases. The American Psychiatric Association has followed more or less a conservative approach for such achievement. However, in recent years the Association became cognizant of the fact that the attention of the entire nation was focused upon the need for adequate preventive and curative mental health services for all the people and that there was a definite demand for such hospital and out-patient services within the means of all classes of society.

The American Psychiatric Association recognized the fact that adequate psychiatric service has not been available to the mass of our population. It is very common not to find a psychiatrist within a radius of over one hundred miles. Most of the psychiatrists are located in large cities and in mental

hospitals. Psychiatric service rendered by hospitals and clinics has never been on the same basis as the services of other branches of medicine in general hospitals. It was recognized by the Association that complete reorganization of hospital and out-patient services will be necessary. A uniform requisite for admission of patients to mental hospitals should be considered as vital. Outside of a few the majority of cases should be considered on a voluntary admission basis. Through education, such a procedure will become a rule rather than the exception. The Association felt that state hospitals for mentally ill should be so well planned that the public will accept them on the same basis as general hospitals. It is obvious that such services can be rendered to the people only through a competent staff. A true medical and psychiatric service can be rendered to the patients of our hospitals through competent personnel which cannot be obtained in any state without consideration of salaries of such a personnel. The Council of the society became greatly concerned about the standards related to clinical activities. In the majority of our hospitals the most skillful psychiatrists are relegated to administrative responsibilities while the person to person treatment to our patients was delegated to the younger and less experienced staff members. The Committee on Psychiatric Standards and Policies of the Association felt that The American Psychiatric Association should be organized on such a basis that the service will radiate from its central headquarters to the whole of the United States as well as Canada and other countries of our hemisphere.

MENTAL HOSPITALS SHOULD LEAD THE WAY

Although marked strides have been made in hospitals for mental diseases in the last twenty years, the institutions have not reached the highest ideals and in the past four years have deteriorated considerably due to lack of personnel and equipment. Most of the hospitals in the country should be reorganized and restaffed.

The adequate recognition of psychiatry depends on standards created by mental hospitals and clinics, since all medical services emanate from the hospitals. Every recognizeed psychiatric hospital should be so well planned that the medical man and the public will accept them, thus public trust and confidence of the medical profession will be established. Such service can be rendered to the people only through a separation of the acutely and subacutely ill, as well as convalescent cases, from the chronic. Approaching this situation very realistically, it was felt that every hospital should assume the responsibility of excellent care and treatment of acutely ill by a competent staff of psychiatrists, well trained graduate male and female nurses and such other aides as are deemed necessary, thus giving the patients a great opportunity for recovery. *The cost for such care should be considered on the same basis as the cost of physically acutely ill in an approved general hospital.* It is also deemed essential to *include* the cost for such services in the policies of the *"Blue Cross" and other hospital insurance* plans. The establishment of such a department in each mental hospital will institute a much greater bond with all general hospitals, medical schools and practicing physicians, thus stimulating a very desirable and badly needed understanding of mental health by the public. It is quite obvious that we are in an especially important era in regard to psychiatry. Never before has there been so much interest among medical men and lay people in psychiatry. Naturally the war and post-war conditions have stimulated this interest to a great extent and men are wanting instruction in psychiatry—men who would like to go into psychiatry, who have had general training in medicine. It is evident that this calls for a new reorganization in our concepts of psychiatric teaching and in the type of service that should be organized in the community. There should be a new integration of state mental hospitals with general hospitals and medical schools.

The committee feels that there should be a psychiatrist on the staff of every general hospital of a certain size, to do consultation work, not only of the traditional psychiatric nature, but also to help with the psychoneuroses and psychosomatic medical cases, both on the surgical and on the medical wards. They should also be available for out-patient work, thus increasing the preventive work. There will be a new type of relationship between the general hospitals and state hospitals. The medical schools should supply men from their staffs to do teaching in state hospitals. This could be in the nature of seminars, discussions of case readings, beside teaching and lectures. The senior men in the state hospitals should receive appointments on the teaching staffs of our medical schools.

The committee hopes also that some time before a degree in medicine was granted, each student would have had to serve some weeks on the staff of a state hospital doing practical clinical work.

At the present time only a very small percentage of the discharged veterans desiring psychiatric training have expressed an interest in training in state hospitals, in spite of the fact that there are many lucrative vacancies on state hospital staffs. If such men were given appointments on a new basis—such as, they could spend half a day at a state hospital, at least a half day two or three times weekly in the out-patient clinic of a general hospital, and perhaps also on the wards of a general hospital, plus receiving regular instruction and supervision by men on the staff of a medical school, we then could develop a new type and standard of psychiatric education in this country.

A new integration between the state hospitals, the general hospitals and the medical schools must be developed if we are going to capitalize on the new interest in psychiatry that has been born as a result of the war.

The Committee on Psychiatric Standards and Policies was inspired by the above cited facts as well as by careful study and consideration of the opinions and thoughts expressed by prominent psychiatrists throughout the United States and Canada.

It had great material for drafting a very practical and adequate plan for future psychiatric services.

The new standards for psychiatric hospitals and out-patient clinics prepared by the committee were approved and adopted by the Council and published in the AMERICAN JOURNAL OF PSYCHIATRY, Vol. 102, Sept., 1945. In the opinion of the committee the above standards apply to large state hospitals and not to small institutions, particularly those connected with medical schools. It is obvious that these small teaching centers should be well-staffed and should carry on teaching and research work as well as have high standards of psychiatric care. One cannot expect the above standards exercised literally in such teaching and other small hospitals.

The committee feels that every well thinking administrator of psychiatric hospitals, as well as the vast majority of psychiatrists, will whole-heartedly support this approach of The American Psychiatric Association. However this will not be sufficient to carry out the program for the ideal plan for psychiatric service. It will be necessary for the organized medical profession through its many channels, to induce the public as a whole to become cognizant of the importance of this program and to prepare their representatives to think seriously how to make this program a reality.

The committee is in favor of The American Psychiatric Association assuming its rightful leadership, by taking more positive and aggressive steps for achieving success in its endeavor.

The American public will not consider psychiatry as a legitimate scientific branch of medicine, as long as mental patients are treated in institutions with a cost of a minimum sixty-five cents per capita per diem and a maximum cost of two dollars per capita per diem.

The committee believes The American Psychiatric Association should become more realistic and demand that every state mental hospital consider a minimum of five dollars per capita per diem necessary for the care and treatment of acute, subacute and convalescent cases and two dollars and fifty cents per capita per diem for the care of various types of chronic cases.

Respectfully submitted,

M. A. TARUMIANZ, M. D., *Chairman,*
J. FREMONT BATEMAN, M. D.,
GEORGE A. ELLIOTT, M. D.,
CLARENCE B. FARRAR, M. D.,
MALCOLM J. FARRELL, M. D.,
FREDERICK LEDREW, M. D.,
HOWARD W. POTTER, M. D.,
GILBERT J. RICH, M. D.,
KENNETH J. TILLOTSON, M. D.,
HARRY J. WORTHING, M. D.

ADDENDA TO REPORT OF MAY 26 OF THE COMMITTEE ON STANDARDS AND POLICIES

It is the opinion of this committee in view of the activities of various lay groups that the Association should take immediate and vigorous action as follows:

1. To set forth the actual status of mental hospital care of patients throughout the country.

2. To state the reasons why deficiencies have always existed and have been aggravated by war conditions.

3. The American Psychiatric Association should fully support and take immediate steps to give effect to the last three paragraphs in the report of May 26.

4. This committee urgently requests council to set up machinery as funds become available for the inspection and rating of all mental hospitals; and to bring to the attention of all state authorities deficiencies requiring correction.

5. The committee is also of the opinion that by supporting wholeheartedly the Psychiatric Foundation the aims of psychiatry as outlined will be greatly advanced by the collaboration of lay and professional groups.

6. That The American Psychiatric Association urge general medical and surgical hospitals to include in their plans for development a psychiatric in-patient service. Such publications as "Modern Hospital" should be requested to carry an editorial on this matter in one of their early issues. Furthermore, that the Council of The American Psychiatric Association take the initiative in gaining the cooperation of the American Medical Association and the American Hospital Association in joint support of this recommendation.

7. That the Secretary of The American Psychiatric Association be authorized to send copies of these resolutions to the authorities of each state requesting them to consider the foregoing paragraphs for future improvement of mental hospitals.

REPORT OF COMMITTEE ON PSYCHIATRY IN MEDICAL EDUCATION

To the Council of The American Psychiatric Association:

The most urgent problem in the field of psychiatric education at this moment is that of training psychiatric specialists to meet the need revealed and created by the war. This emergency in psychiatric education occurs at a time when psychiatry itself is in a period of transition. Psycho-dynamic principles and therapeutic methods are beginning to receive the major emphasis in teaching. The content of such teaching is not yet thoroughly crystallized, capable teachers are few, and the methods of satisfactory teaching are still matters for varying experimentation. Your committee does not therefore consider it desirable at this time to specify in detail optimum patterns of specialistic training. Certain general principles may well be stated.

Satisfactory training requires intensive clinical experience, with close supervision and guidance in psycho-therapy. For this purpose the best plan is for resident apprenticeship training in a psychiatric institution with much active teaching and supervision and a broad range of psychotic, psychoneurotic and psychosomatic conditions in adults and children. The minimum acceptable duration of this basic psychiatric training is two years. The number

of training positions of this type has always been small. In the efforts to increase them now consideration must be given to the limitation of staff and case material. To double the number of such residencies without other growth would probably be in error; actual planning in various centers seems to be for a 50% increase. In general, two sorts of compromise appear feasible: (1) at least three months of intensive instruction in all aspects of psychiatry in a medical center to supplement two years' experience in a psychiatric hospital with specialized types of cases, such as state hospitals and veterans hospitals: (2) concurrent combination of such teaching and experience, through division of trainees time, such as four days on the job, two days in teaching center.

The committee recognizes the justice of the complaint that the teaching of psychotherapy in too many instances has not been adequate. Greater emphasis should be placed on psycho-dynamics, seminar discussion of clinical cases, and an opportunity for the student to be present when psychotherapy is being carried out by the instructor. (Visual aids, recording devices, one-way screens, group psychotherapy may be utilized for this purpose.)

Medical schools now have in prospect a period of six months of decreasing undergraduate teaching demands as the present accelerated program is terminated. Your committee recommends that the association urge the deans of medical schools that every possible facility be utilized during this period in order to enlarge the program of graduate teaching in psychiatry. We recognize the needs of the undergraduate students and we do not suggest relaxation in the standards of their program.

Your committee invites attention to the report of the Hershey conference on psychiatric rehabilitation which resulted in nine specific recommendations for the improvement of techniques in dealing with psychoneurotic and psychosomatic disorders and the psychiatric aspects of comprehensive medical care. As a further step towards the realization of this purpose, the Commonwealth Fund which subsidized the Hershey conference is now sponsoring in combination with the State Medical Society of Minnesota and the University a two-weeks' course for the psychiatric orientation and training of the general practitioner which will serve to guide future developments in this direction. This course was given to 25 practitioners the first two weeks of April, 1946, and was an outstanding success. The instruction was oriented to the everyday problems of medical practice with practical emphasis upon the understanding of the emotional factors that work. The course was limited to the understanding of the psychoneurotic and psychosomatic responses and to the understanding of the patient as a living dynamic person involved in disease process. The essential principles stressed were the patient-physician relationship, the value of technique of interview and the rôle of the emotions in the development of personality structure. These fundamental topics were presented by a coordinated teaching team with minimum didactic work (one hour lecture each day), and small and large group seminars. Each student had an opportunity to study and present individual patients; clinical work with patients proved to be the real backbone of the training program. This successful demonstration as well as the course given in West Virginia indicated that practical and effective psychiatric training of the general practitioner can be accomplished and that active, vigorous follow through of this work should be promulgated by this Association.

Your committee is pleased to note that a psychiatric personnel service has been set up under the joint auspices of The American Psychiatric Association and the National Committee for Mental Hygiene which is designed to survey and create opportunities and facilities for psychiatric training and to aid medical schools and hospitals in securing competent psychiatrists for their staffs.

The enactment of mental health legislation now pending before Congress may considerably increase funds and facilities available for psychiatric training. The Veterans Administration is now effectively completing plans to provide additional training opportunities utilizing the facilities of each teaching center. An excellent 12 weeks' course for this group has already been given at the University of California Medical School under the direction of Dr. Karl Bowman.

We recognize the probability that undergraduate psychiatric education may be somewhat neglected during the preoccupation with the current emergency in graduate training. There are however pertinent lessons from the war period which should be noted and considered for improving undergraduate instruction. There is agreement that the general level of psychiatric education for medical students has been inadequate. War experience has shown the need for teaching psychiatry as a basic medical science for the comprehensive care of all types of illness. The principal criticism of previous psychiatric instruction has often been its static character and the stress on diagnostic labelling in contrast to essential emphasis on dynamics and therapy. The actual steps to remedy those deficiencies inevitably vary with the different medical schools, and your committee does not consider it wise to specify in detail the ideal plan. We consider it necessary nevertheless to point out that certain matters should be covered in the teaching content of the four years' medical course, namely: normal personality functioning, interviewing, method of examination, dynamic-psychopathology, experience as clinical clerks with patients in general medical departments and in pediatric and surgical services as well as in psychiatric wards and out-patient departments.

The anticipated continuous progress and interest in psychiatric education indicates the need for more intensive activities of this committee. It is recommended to Council that the membership of the Committee on Psychiatry in Medical Education should be increased and that regular quarterly meetings be held. Letters should be sent to the dean of each school outlining the objectives of psychiatric teaching at all levels. Intern training should be more actively promulgated. Standards of curriculum and

the need for better clinical facilities should be presented. All measures should be utilized for the recruitment and strengthening of teaching staffs.

It is recommended to Council that closer liaison should be created with educational committees of other national associations such as the American College of Physicians, Association of American Medical Colleges, American Academy of Pediatrics, etc., so that coordinated programs can be established and strengthened. Likewise there should be a follow through concerning our previous request for representation on the National Board of Medical Examiners.

FRANKLIN G. EBAUGH, M. D.,
JOHN WHITEHORN, M. D.,
JOHN ROMANO, M. D.,
WM. C. PORTER, M. D.,
O. SPURGEON ENGLISH, M. D.

REPORT OF THE COMMITTEE ON PUBLIC EDUCATION

To the Council of The American Psychiatric Association:

With psychiatry continuing to feature prominently in the various realms of public activity, a general interest in the field has been sustained. Psychiatric information released for public consumption has found an attentive audience, and vehicles for public education efforts have been provided in several spheres: contemplated psychiatric legislative action in Congress, psychiatric aspects of rehabilitation procedures, activity within our own professional ranks to establish psychiatry in the reconversion setting, and other psychiatric affairs of general interest.

In the legislative sphere, the proposed legislation formerly known as H.R. 2550, now the National Mental Health Bill, has passed the house, where it is known as H.R. 4512, and is before the Senate as S. 1160.

This suggested national program of neuropsychiatric teaching, research, and service has rightfully aroused interest in psychiatric circles, and although psychiatrists do not unanimously support it, they seem more or less uniformly agreed on it, and from time to time, many have offered constructive criticisms as to details of function under the Bill.

At intervals, factual information regarding the Bill has been distributed by this committee to our State Representatives, and they and members of the Central Committee have continued to urge its passage in some form. Congressmen and other individuals have been contacted, and members of this committee and other officials of the Association have been called to Washington where they testified in favor of the Bill.

Another sphere of activity resulting in better psychiatric services is the reorganization of the Veterans Administration. The policy of the new administration has been to locate veterans hospitals as near as possible to great medical centers on the basis of veterans' needs, instead of on the basis of political patronage.

When the reorganization was publicly attacked by opposing political factions, bringing the matter to the attention of every citizen interested in seeing that the veterans receive the best in medical care among other benefits, The American Psychiatric Association came forward with unqualified support of the new policies. This committee, under authorization of the Executive Committee, prepared and distributed to all leading newspapers and all professional journals a news release announcing the Association's official stand. Excellent coverage was obtained on the release, and letters of appreciation were received from General Bradley, General Hawley, and Captain Daniel Blain.

Also relating to services for veterans is the committee's work with the Psychiatric Personnel Placement Service, jointly established this past year by The American Psychiatric Association and the National Committee for Mental Hygiene to bring opportunities in the field together with psychiatrists and other interested medical men being discharged from the armed forces.

Nation-wide coverage was obtained by a general news release sent to all newspapers and professional journals, and the committee requested its State Representatives to canvass their own areas for psychiatric opportunities in child guidance clinics, industry, etc., as a supplement to the efforts of the Placement Service, which surveyed all hospitals. The responses received were forwarded to the headquarters of the Placement Service.

In view of the establishment of the Committee on Psychiatric Placement, this committee has foregone further liaison measures between the Association and the National Committee; no formal action has yet been taken by the council on this question, although there has been correspondence between the two organizations from time to time. In addition to requesting the Council to give voice to a decision on a liaison committee between the two organizations, the committee also requests the Council's opinion on possible liaison between the Association and the National Mental Health Foundation, when and if the Council approves of this new organization.

The National Mental Health Foundation, administratively independent of the National Committee, but cooperating with them, has as its avowed objectives better psychiatric care, public education, and legislative recommendations, and has expressed the desire to develop close relationship with all agencies and groups who share its interest in mental health. This committee does not wish to anticipate action of the Council, but requests specific instructions from the Council in regard to the National Mental Health Foundation.

Apropos of influencing the public understanding of psychiatry and psychiatric treatments, much attention has been focused on sensational dramas and distorted impressions of psychiatry, as exemplified in the film, "Shock," recently released by Twentieth Century-Fox. Specifically in regard to "Shock," innumerable written and verbal complaints and protests have been registered with this committee and officials of the Association by psychiatrists and other interested people who foresee the unorthodox activities of the psychiatrist-villain of the show creating a public apprehension toward psychiatric therapy.

This psychiatrist, diabolical and relentless, com-

mits a murder, and then attempts to kill the only witness, a patient of his, with overdoses of insulin. Finally, after many frightening scenes, the murder is discovered, a reputable psychiatrist summoned, and the patient revived with injection of adrenalin and glucose into the vein.

The psychiatric profession feared that the film would so increase apprehension on the part of patients, relatives of patients, adolescent boys and girls, and people in general, that the effective use of shock therapy would be curtailed. The inclination on the part of many members of the medical profession, and particularly psychiatrists, was to protest loudly and publicly to convince the people that the picture is not a reproduction of the legitimate practice of psychiatry, and to demand its removal from the circuit.

However, we were reminded that banning a book in Boston never fails to sky-rocket the sales of that book, and public controversy over "Shock," would probably have been nothing more than good advertising, sending throngs of people to the theater to "see what all the shouting was about." Obviously, the film industry had put thousands of dollars into the production, and nothing we could do would prevent their showing it.

A more sophisticated public relations technique was followed, and it developed that the film was denounced on a technical and moral basis in the *New York Times, PM,* and other papers by dramatic critics whose opinions are accepted as unbiased criticism within their legitimate sphere of activity, thus exerting the desired influence without the controversial or self-defensive element. Reported to be a second-rate picture, the film will probably die a natural death.

The point in question is not what to do about the film, "Shock," but how we can avail ourselves of the opportunity to secure better control in the future. Film industries, like the press, are not conducted for public philanthropy, nor for the primary purpose of promoting the medical aims adjudged by the medical profession to be the most appropriate. The film industry accepts only the responsibility of the general acceptability of motion pictures from the standpoint of common decency and basic morality. However, they are disposed to act within the framework of public interest, and as a matter of fact, in this particular instance, a local psychiatrist was consulted, not only before, but during the actual filming of the sets.

Our aim was to show the film industry that they needed more substantial psychiatric advice and guidance, and we feel that exactly that has been accomplished.

We offered to top film officials whatever assistance we can provide in the future toward improving and restricting the portrayal of psychiatric matters within the limits of scientific correctness, without presuming to adopt the rôle of censor. In reply, they sent written acceptance of our committee's proffer of help, expressing their "appreciation of the reasonableness" of our committee's viewpoint, and requesting suggestions as to how they might "go about getting the right kind of counsel in such matters." All of this has received appropriate attention by this committee.

Further, whether in answer to our protests or not, an article recently published in "Coronet," spotlighted Joseph I. Breen, who enforces the Production Code, and whose job it is to "tidy up the screen plays and superintend the moral values." After a few pages on the maintenance of propriety and morality in films, there was the statement which can be applied to "Shock:" "The Breen office formerly received 75 thousand letters a month complaining that newspapermen, doctors, psychiatrists, or lawyers, for instance, were libelously depicted. Only a handful of protests is received now. This is because of 'compensating moral value.' Breen insists that a producer who shows a bad lawyer must also show a good one; a good doctor for a bad doctor, and so on."

This committee has reported the technique for handling this matter relating to the film, "Shock," not as an isolated instance, but as an example of handling other situations which have existed for the past fifteen years. *We venture to state that the best public relations efforts are the quietest, least obvious, and least controversial in the press. To forego that principle is a pitfall which BEGINNERS IN THE FIELD OF PUBLIC RELATIONS FIND IT DIFFICULT TO AVOID.*

Your committee has not always been successful in avoiding public controversy in the press, but we would like to feel that as the years have passed, we have proven our techniques in quiet, substantial public relations work.

Along the line of influences outside of the profession which endanger the professional standing of psychiatry are those unqualified practitioners posing under feigned degrees and misleading titles, giving advice on emotional problems for a fee. Last brought to the attention of the Council in the interim report of this committee, these "consultants" have been a problem for many years, and have been exposed in the book, "Where Do People Take Their Troubles?"

It was suggested that legislation be urged which would require these people to publish their qualifications, but doubt has since been voiced that the patients would be astute enough to discriminate among good, bad, or indifferent qualifications. There is probably no perfect answer to the problem of controlling these groups, but the committee earnestly requests the Council to take some action in providing direction in this matter.

The committee is pleased to note that it is apparent that psychiatry has passed the peak of extreme statements concerning the psychological devastation of war on veterans, and takes this opportunity to reaffirm its stand of urging demonstrable statements concerning the need for and efficacy of psychiatric services.

An important part of the Association's Annual Meeting this year will deal with psychiatry's part in the reconversion to peace and in the rehabilitation of returning veterans. At the time of writing, the committee is embarking upon a publicity program for the convention, and it is hoped that the publicity

obtained on this and other important aspects of psychiatry to be discussed will contribute toward attaining our public relations objectives.

The public understanding of psychiatric matters was born out of a distorted idea of mental disorders and their treatments, and though it is safe to say that progress has been made in correcting faulty attitudes, psychiatry, by virtue of its characteristics of the "abnormal" and the dramatic, is still susceptible to exploitation by unthinking or uninformed persons.

This committee is convinced that, in the long run, with our continuing to proceed in a dignified manner, conscientiously practicing our specialty on a scientific basis, and particularly with cohesiveness within our own psychiatric group, an increasingly accurate public understanding of psychiatry will be established, and subsequently, psychiatric services will be accepted on the same basis as those of other medical specialities.

Cohesiveness within our group is of such importance that anything we can do to increase the solidarity of our ranks will strengthen our position with the public. It is paramount that we present a united front.

All psychiatric institutions, and particularly state institutions, have always suffered, and the war was nothing less than devastating in knocking down what standards did exist. The small, devoted group working to keep these institutions running certainly cannot be blamed for the low standards of care, and this committee recommends that the membership be advised to refuse to continue as a whipping post for conditions resulting from lack of public support and legislative appropriations.

Psychiatrists are too prone to place themselves on the defensive; it is this committee's opinion that they should instead become militant and objective, pointing out the shortcomings, and by so doing, bring the leadership back into the profession, and place the responsibility for those shortcomings on those who have the money and the power to remedy them. We will place ourselves in the most strategic position if we ourselves are the first to criticize, and the first to state what should be done. We must strike at the legislature and at every other group, to prick their consciences until they are aware of the shortcomings and feel duty-bound to remedy them. The Committee on Public Education urges the Council to go on record as advising the membership accordingly, with recommendations as to the best strategy of battle.

Respectfully submitted,

C. Charles Burlingame, M. D., *Chairman,*
George S. Stevenson, M. D., *Vice-Chairman,*
Charles A. Rymer, M. D.,
Newdigate M. Owensby, M. D.,
Gerald Jameison, M. D.,
Henry O. Colomb, M. D.,
Martin H. Hoffman, M. D.,
Gaylord P. Coon, M. D.,
Frank H. Luton, M. D.,
Howard R. Masters, M. D.

Report of the Special Committee on Reorganization

(This report, with the exception of the following amendment, was printed in our March, 1946, number (102 : 694).)

AMENDMENT

In view of the fact that the Program Committee had almost completed its preparation of the Scientific Program for the nineteen forty-six meeting at the time when the Report of the Special Committee was presented to the Council on December eighteenth, nineteen forty-five, the committee decided to amend its recommendations as follows:

1. That with the assistance of the Program Committee a portion of the nineteen forty-six meeting be devoted to ascertaining the reactions of the membership of our Association to the Report of the Special Committee.
2. That insofar as it is practical to do so the meeting of The American Psychiatric Association in nineteen forty-seven be devoted to discussions of the practical problems our members meet in their daily work.
3. That the committee be continued and that it work with the Program Committee in the interests of the practical professional needs of the members of our Association.

Karl Menninger, M. D., *Chairman,*
Leo H. Bartemeier, M. D.,
A. E. Bennett, M. D.,
Spafford Ackerly, M. D.,
Thomas A. Ratliff, M. D.

Report of the Special Committee on Psychiatry in the Armed Forces

To the Council of The American Psychiatric Association:

Since the last report of this committee for its Council on December 18, 1945, but one meeting has been held, that at the Division of Neuropsychiatry in the Offices of the Surgeon General at Washington, D. C.

At that meeting, Brigadier General William C. Menninger presented a résumé of the major developments that had taken place, since the previous meeting of the committee on the 16th of July, 1945.

It was reported that the School of Army Neuropsychiatry had graduated 1,237 students and was being moved from the Mason General Hospital to Fort Sam Houston, Texas, where it is now operating and it is proposed that the School of Military Neuropsychiatry should include the development of training of clinical psychologists, psychiatric social workers, psychiatric nursing and ward attendants, in addition to the training of psychiatrists and neurologists.

Many of the Bulletins prepared by the Division of Neuropsychiatry on "Clinical Psychology Service," Neuropsychiatry for the General Medical Officer," Psychiatric Social Work," "Psychiatric Tésti-

mony before Court-Martial" and on "Nomenclature" were presented and approved by our committee and our committee were unanimous on the desirability of wide circulation of the Nomenclature and its publication in the American Journal of Psychiatry.

Some time was spent in the discussion concerning the possible screening at the induction centers and the effects of the lowering of accepted standards as they applied to psychiatric cases.

There was also much discussion concerning the need for training more psychiatrists and particularly as applied to physicians who had had psychiatric experience in their military career. It was agreed that a letter based on the information at hand, should be prepared and sent to all presidents of colleges or universities and deans of medical schools, calling to their attention the great need for indoctrination of all medical students in the field of neuropsychiatry; this to be signed by all members of the committee and a copy of this is appended. Answers have been received from all those by whom this letter was received and most cordial response to the needs of increasing indoctrination of all medical students in psychiatry was received from all of them.

It is the feeling of this committee, that this letter has been and will continue to be of significant importance concerning the training of more physicians in psychiatry.

The plans for a military section of The American Psychiatric Association were discussed and endorsed. General Menninger reported on the progress of the Neuropsychiatric history of the war. He stated that he hoped to be released from the Army in July, 1946.

This committee was a temporary one and now it feels its service has been rendered and requests discharge. We cannot conclude this report without paying the highest tribute to the leadership of Brigadier General William C. Menninger and a most able staff of assistants, who accomplished an unbelievingly great task, and has advanced Neuropsychiatry to a higher level of efficiency.

Respectfully submitted,

ARTHUR H. RUGGLES, M. D., *Chairman,*
KARL M. BOWMAN, M. D.,
ALAN GREGG, M. D.,
FREDERICK W. PARSONS, M. D.,
EDWARD A. STRECKER, M. D.,
EDWIN G. ZABRISKIE, M. D.

ARMY SERVICE FORCES
OFFICE OF THE SURGEON GENERAL
WASHINGTON 25, D. C.
April 1, 1946

DEAR DR.

We venture to draw your attention to one of the impressions we have received as consultants to the Secretary of War in the Neuropsychiatry Consultants Division of the Surgeon General's Office, since we are convinced that it would be folly to ignore some of the important lessons revealed thus far by the experience of war.

Not only have we needed (and still need) a far larger number of thoroughly trained psychiatrists, but *all* medical students need better instruction and training in psychiatry than they have been receiving in our medical schools. The majority of physicians were not sufficiently oriented in modern psychiatry. Such training is needed because of all the neuropsychiatric cases diagnosed and treated in the Army, only 7% were psychotic or insane; 93% were not extreme cases but depended for recognition and adequate care upon what the average doctor serving as a medical officer had of psychiatric knowledge and skill. Too often that knowledge and skill were not what might have been expected of well trained doctors.

The mere number of cases calling for psychiatric understanding redoubles the argument for the importance of psychiatry in medical education. The Army recorded over 380,000 medical discharges for neuropsychiatric disorders (mental deficiency, homosexuality, alcoholism, and anti-social reactions) between January 1942 and December 1945. Also, from the induction board examinations 37% of the total rejections were for neuropsychiatric conditions. Perhaps an even more arresting fact—these individuals represented 12% of all candidates examined by induction boards.

On any typical average day of the war, 10 to 15 per cent of the patients in the Army Hospitals were neuropsychiatrics. At the peak, the Army had about 45,000 physicians but only 2,400 were classified as neuropsychiatrists. In fact half of this number were trained by the Army itself to meet an emergency situation. There were only about 1,000 psychiatrists who were commissioned directly from civilian life, of whom less than 500 could be considered to have been mature specialists. In contrast to the exceedingly small number of psychiatrists, the Army had available at peak about 10,000 surgical specialists and 6,000 specialists in internal medicine.

Derived from these percentages is this simple conclusion: the milder forms of mental defect, emotional instability, and neurotic weakness are far more common and a much larger component of illness and incapacity in either military or civilian populations than is reflected by the budgets, the teaching personnel, or the time devoted to psychiatry in our American Medical Schools.

We believe that it is a reasonable course and perhaps a helpful one for us to send you this information in our earnest hope that the importance of psychiatry in the practice of medicine will be given adequate attention by our medical schools.

Yours sincerely,

ARTHUR H. RUGGLES, M. D., *Chairman,*
ALAN GREGG, M. D.,
FREDERICK W. PARSONS, M. D.,
EDWARD A. STRECKER, M. D.,
EDWIN G. ZABRISKIE, M. D.

REPORT OF COMMITTEE ON VETERANS' AFFAIRS

Your Committee on Veterans' Affairs, on the invitation of Dr. Daniel Blain, Acting Assistant Medical Director for Neuropsychiatry, has acted in an

advisory capacity on matters of policy concerning the psychiatric care and treatment of veterans.

Both as a committee as a whole and as individuals we have consulted with Dr. Blain on psychiatric hospital organization; medical, nursing, and ward attendant staffing; graduate psychiatric education of untrained doctors entering the service and the education and training of doctors for psychiatric clinics in the community; improving the professional competence of permanent psychiatric staff in the hospitals; organization of community clinics; the use of individual doctors for psychiatric treatment in those communities where organized clinics do not exist; the aim and content of graduate courses in psychiatry; medical school affiliation; consultant and part time professional assistance; etc.

In each instance in which we have been called on collectively or individually, our counsel and recommendations have been guided by the standards and policies of The American Psychiatric Association.

Respectfully submitted,

HOWARD W. POTTER, M. D., *Chairman,*
EDWIN G. ZABRISKIE, M. D.,
HOWARD K. PETRY, M. D.

REPORT OF THE COMMITTEE ON PROGRAM

When your committee met in New York in mid-December, 1945, to organize the program for the 1946 Annual meeting it was faced with complications that arose primarily out of the following two factors: In the first place, the cancellation of the 1945 meeting that was finally decided upon late in the spring, left us with a fully organized program which meant that we had accepted enough of papers to cover all the sessions. Since then, many additional papers were received and this necessitated a rearrangement and deletion of some papers which had already been accepted by the committee. A certain proportion of the newly received material was actually preferable on the basis of quality but there was an additional consideration that guided us in our decisions. The important changes that came with the cessation of hostilities made it necessary to shift our attention to new psychiatric aspects. Subjects such as veteran rehabilitation and the functions of the Veterans Administration, reconversion in industry, the application of experiences gained in wartime to civilian practice, the U. S. Public Health plans in regard to psychiatric problems and a number of others, had to be given consideration in preference to other problems that had occupied our interests in the last three or four years. We are bringing this to your attention because we wish to emphasize the fact that the failure to accept some papers that were offered and the deletion of other papers that had been previously accepted were not necessarily based on the merits of the papers themselves. In a number of instances the decision was made because of the timeliness of certain problems as contrasted with others. Some of the more important changes that were undertaken this year included such things, for instance, as combining the presentations by the various military services into one half-day program with the main purpose of bringing out more emphatically an overall survey of the experiences gained during the war and the lessons that were learned that could be applied (a) to civilian psychiatry; (b) to future needs if they come up. A whole half-day session was set aside for a discussion of the plans that the psychiatric department of the Veterans Administration is in the process of organizing at present. It was felt that the Association should be given first-hand information on this subject and a proper orientation in regard to the new developments.

The plan of holding a one-day session for the whole Association that was inaugurated at the 1944 meeting was found to be so successful that we have continued it this year. Part of it is given over to addresses by invited prominent speakers who will bring us points of value from related fields. Another part is to serve the need for a general discussion of the present status of interrelationships within the society and suggestions as to possible new developments in the future.

The program as it stands speaks for itself. It represents both geographically and contentually the interests and activities of the society as a whole according to the best judgment of your committee. How near have we actually come to achieving this goal? Your committee would be grateful for your evaluation and advice in regard to dealing with this problem. Our membership is large and represents not only a variety of geographic sections, but also different orientations, activities, needs and opportunities. The committee feels that the scientific programs of the annual meetings should be dynamically representative of all of these. It is only in this way that participation in the meetings will result in a real exchange of views and stimulation of further progress. To do this, however, it is most essential that the program should represent an adequate picture of what is actually happening wherever psychiatry is practiced. Throughout the country psychiatrists are working on various aspects of the problem of personality disorders. Investigations of vital importance to psychiatry are also being carried on by workers in closely related disciplines, such as medicine in general, physiology, biochemistry, psychology, sociology and anthropology. Furthermore there are other fields of activity which even if not essentially of a scientific nature, are equal in importance to those mentioned. These include such phenomena as major social events, changes in legal concepts, interrelationships within the psychiatric organization or between it and other organizations, etc. All of these activities should find adequate representation in the program, and this should be the primary principle upon which the choice of papers offered by members would be based. The committee should, furthermore, assume a more active rôle and invite presentations on certain subjects whenever it is felt that the material should be brought before the members of the Association. The members of this committee realize that the practical value of this plan would depend largely upon the extent to which information concerning such activities can become readily available to them. It is possible that this can be accomplished through

the utilization of resources now available or that new methods will have to be devised. We hope that the Council, after considering this matter, would give us both their critical evaluation and advice how to implement the plan.

WILLIAM MALAMUD, *Chairman*,
ROSCOE W. HALL,
HUGO MELLA,
T. A. WATTERS,
MILTON H. ERICKSON,
D. EWEN CAMERON,
G. KIRBY COLLIER,
OSCAR RAEDER,
WILLIAM C. MENNINGER,
FRANK J. CURRAN.

REPORT OF THE COMMITTEE ON RESEARCH

The committee has conducted its business, such as it has been, by correspondence this year, due in large part to the difficulties in transportation and the lack of any subject matter cogently needing discussion.

The committee is agreed that under the present set-up there is little that a Research Committee can do, since funds for a secretary and other assistance necessary have never been granted, despite the fact that they have been repeatedly requested. At present research is such an individual matter that the committee has no means of informing itself of what is going on and no means of directing or participating in research.

Our recommendations boil down to two main ones, concerning which the members are in agreement:

1. That such a committee should have professional and full-time workers, who will be able to find out what is going on in research throughout the country; and secondly, by digesting whatever new appears in the literature in those channels not ordinarily coming to the attention of psychiatrists bring the work of fundamental science which is relevant to psychiatry to the attention of research and laboratory workers in psychiatry.

2. That The American Psychiatric Association empower the Committee on Research or the President of the Association to appoint committees which will study and make reports on fundamental research matters. For example, a Committee on Eugenics is essential for psychiatry. The newer therapeutic measures, which bring about more remissions than were formerly had, turn loose in the community people who, if they have defective germplasm, are freer to propagate. If there is a hereditary basis to much of mental sickness, then certainly The American Psychiatric Association should be prominent in the work on eugenics.

The newer therapeutic measures should be evaluated from time to time as they appear. Thus, a committee on prefrontal lobotomy, on electroshock, on the use of the barbiturates and the psychological methods associated with their use in the war—to cite a few matters—ought to be appointed to evaluate these methods from time to time. There should be no long lag between the actual facts and the dissemination of those facts throughout the membership. The personnel of these committees should be, first, men whose interest in the particular type of work has been manifest, and secondly, men who know scientific and statistical methods sufficiently well to analyze and evaluate the claimed results.

Respectfully submitted,
ABRAHAM MYERSON, M. D., *Chairman*,

May 27-31, 1946

REPORT OF THE COMMITTEE ON PSYCHIATRIC NURSING

In making this report of the Committee on Nursing, a brief recapitulation of the report made to the Council in December 1945 would seem to be in order. This report was received and adopted by vote of the Council at that time. One of the major recommendations made was: "Since the value of this work (the nursing project) has been demonstrated, I move that this service be carried on as a permanent part of The American Psychiatric Association with financial assistance from outside sources so long as it is available and when outside financing is not available, funds to be provided by The American Psychiatric Association for this purpose." Another part of the report of major importance recommends that the standard for affiliate courses be restored to a minimum of three months as soon as this is possible for the general hospital schools of nursing. This is in accordance as well with the Committee on Psychiatric Nursing of the National League of Nursing Education.

I think it is well to call to the attention of the Council and the membership at large that the textbook on the training of attendants, of which Mrs. Fitzsimmons is the author and The Macmillan Company are the publishers, will be available according to present information from the publishers in July 1946. It was formerly anticipated that this would be available in May.

There has occurred a development since December of major significance with respect to the work of the nursing project. Briefly, and I will enlarge on this later in the report; Mrs. Fitzsimmons resigned as nursing consultant on February 15, 1946, and her work was taken over by Mrs. Lela S. Anderson on March 1, 1946. The point that I consider of major significance is that the new appointee, Mrs. Anderson, has been able to carry on efficiently from the beginning of her tenure. This is an indication to your chairman that the techniques developed by Mrs. Fitzsimmons in carrying on the work of the project are transferable and not wholly individualistic. I believe this speaks well for the future development and progress in the training of psychiatric nursing personnel and attendant personnel. Naturally Mrs. Anderson will require, and I believe rapidly acquire, personal and geographical orientation.

Mrs. Fitzsimmons' resignation was accepted with regret to allow her to accept the position of Assistant Superintendent of Nurses in charge of psychiatric nursing in the Veterans Administration in

Washington. There is no question of the service she will be able to render in her new position and the rôle that it will be possible for her to play in the advancement of psychiatric nursing in this very important field, and of almost equal importance the stimulation that she can offer in the adequate training of attendants in Veterans' Facilities. Mrs. Lela S. Anderson, her successor as nursing consultant, was chosen after personal interviews with the three members of the Advisory Committee residing in the East, namely Drs. Ruggles, Chambers and Wall. They were unanimous in their choice. Mrs. Anderson for seven and a half years previous to her acceptance of this position had been Supervisor of Nurses and Attendant Training in the State of Virgina Department of Mental Hygiene. She has a bachelor's degree from Columbia University and has done some work toward her master's degree, also at Columbia. She is a graduate of the Highland Hospital and Philadelphia General Hospital Schools of Nursing and has had a long experience in the field of psychiatric nursing in various administrative and teaching capacities. I believe that we were very fortunate in securing her services, and that she was able to take over Mrs. Fitzsimmons' duties after only a two-week interval. Your chairman in accepting Mrs. Fitzsimmons' resignation was apprehensive that a suitable successor could not be found promptly and that the work of the project might suffer a serious setback if a long interval elapsed between the resignation and the new appointment.

Members of the Council may recall that at the Philadelphia meeting your chairman advanced the idea that psychiatric nursing, psychiatric social work, and psychiatric occupational therapy should collaborate closely in any educational program in mental hospitals directed toward nursing and attendant training. The recommendation is now being made to the Council that provision be made by official action of the Council to provide for close collaboration among the chairmen of these three committees. I believe no one will deny that some orientation in these three disciplines is not only desirable but necessary as a part of the training of personnel in any of these three fields. Such orientation cannot be as effective as it should be, without some such arrangement.

Since the termination of the Bolton Act, which occurred in October 1945, there have not been federal funds available for scholarships in graduate nursing education. In psychiatric nursing such scholarships are of fundamental importance, otherwise many excellent psychiatric nurses will be denied the opportunity of graduate work at the university level because they will be unable to finance it personally. Such graduate training is absolutely essential if we are to develop an adequate reservoir of properly qualified nurses as psychiatric instructors and administrators. There is pending at the present time in the Congress, what was originally H. R. 2550 and is now H. R. 4512, a bill to amend the public health service act to aid in the development of more effective methods of prevention, diagnosis, and treatment of mental disorders. Provision for subsidies to properly qualified persons for further study in this field is made in these two bills. I would ask that the Council communicate with Mr. Priest, who introduced the bill in the House of Representatives, and with committee chairmen to whom the bill has been referred in both House and Senate to make certain that these properly qualified persons will include nurses. There is a very definite possibility if financial assistance cannot be made available from some source for nurses who wish to pursue graduate training in psychiatric nursing, that a number of courses which have been set up at various universities throughout the United States will fold up through lack of candidates. This would be exceedingly regrettable and constitute a retrograde step. If this somewhat pessimistic anticipation should eventuate, an adequate supply of instructors and administrators in psychiatric nursing would be delayed indefinitely.

Your chairman was anxious last year to have the curricular standards in psychiatric nursing originally approved by the Council at the Chicago meeting in 1938 revised and brought up to date. In view of the prevailing uncertainty of last year, this was not done. It now seems, however, that basic training courses for nurses will be restored at the most within two years. It would be regrettable if the basic courses were returned to the level existing previous to the recent emergency, and we as an Association have nothing more recent than 1938 in curricular standards for psychiatric nursing. Consequently it is proposed during this coming year to revise the existing standards, adding emphasis at some points and subtracting it at others, in the light of the past eight years' experience.

During the course of the year several mental hospitals have been accredited by the committee for affiliate courses in psychiatric nursing. In most instances accreditation has been granted on the basis of a two month affiliation to conform with the compression of the basic nursing course which existed during the emergency. It is proposed, however, to advise these schools as soon as it is practically possible that the accreditation will not be continued unless the affiliate period is restored to three months. Many in the Association feel that even three months is too short a period, but it does not seem practically possible throughout the United States and Canada as a whole to require and hope to have a longer period generally accepted by the general hospital schools.

In a previous report your chairman made the observation with regret that the trend in psychiatric nursing seemed to be toward a reduction in basic schools in mental hospitals. It is now possible to give you the actual figures. There are presently 23 active basic schools in mental hospitals in the United States. Twelve of these are in the state of New York, leaving only 11 for the rest of the country. This represents a reduction of 14 such schools in the past two years. Affiliate courses and senior cadet programs have been established in 32 hospitals not previously having such courses. At the present time there are seven states in which no psychiatric experience is available. This is an improvement

over three years ago when there were 14 such states. Five states and the District of Columbia report that all undergraduate students in nursing receive psychiatric nursing experience. I think we can therefore say that there has been decided improvement in this respect since the work of the nursing project was initiated July 1, 1942.

Your chairman wishes to express his appreciation of the sympathetic cooperation which the Council has given to the Committee on Nursing and to him personally. He wishes also to express to the members of the Advisory Committee on Nursing and the whole committee his thanks for their support, encouragement and wise counsel.

Respectfully submitted,

CHARLES P. FITZPATRICK, M. D., *Chairman,*
EMMETT F. HOCTOR, M. D.,
GROSVENOR B. PEARSON, M. D.,
JOSEPH E. BARRETT, M. D.,
KENNETH E. APPEL, M. D.,
ARCHIBALD MCCAUSLAND, M. D.,
WILLIAM L. PATTERSON, M. D.,
JAMES H. WALL, M. D.,
RALPH M. CHAMBERS, M. D.

DELIVERED AT THE WEDNESDAY FORUM ON THE REORGANIZATION OF THE ASSOCIATION AT CHICAGO, MAY 1946

All of us, when we join the Association, have expectations as to how far the organization might lend strength and weight to our own aims and anticipations.

Many of us have had the hope that in these days of enormous personal and social change, the Association would constitute one of those powerful forces which are at work in building our future social order. For there is no group anywhere, the members of which have such detailed and profound knowledge of all aspects of human nature.

But the Association has not, and does not, assume that leadership. It is a measure of our own maturity if we can bring ourselves to accept the fact that not only has it not undertaken leadership but that it cannot, not because of inadequacies on the part of those who have directed its policies for these last several decades, but because of its own constitution. These constitutional inadequacies it shares with every other organization which is of continental scope. Within them there is, of necessity, a diversity of interest and of aim which quite precludes the single-minded striking towards a goal which is the essence of leadership. Now wherever you have such diversity within an organization you must proceed by compromise, and compromise is not pioneering leadership.

I have dealt with this point at some length for it has seemed to me that much of the very considerable, the undeniable dissatisfaction which exists concerning the performance of the Association within recent years arises from this misconception concerning the leadership which it can give.

It is important to get clear in our minds what our Association can be expected to do and what it cannot. A lot of energy can be wasted trying to get an elephant to jump through a hoop. To accept the fact that its very nature prevents it from taking the active part in our times which many of us had hoped that it would, does not mean that one must give up hope that its functioning can be improved. In rapid succession I shall mention certain changes which appear to me to be fundamental to more effective action.

First, certain of the standing committee should be strengthened through the appointment of permanent paid secretaries. I would mention the Committee on Psychiatry in Medical Education. The excellent work which this committee has done can be greatly expanded. The rating of medical schools by the American Medical Association and the American College of Physicians and Surgeons has already been established. There is no reason why The American Psychiatric Association, through its Committee on Medical Education, should not undertake the rating of departments of psychiatry in universities and medical colleges. This is a period of rapid growth of such departments. They, and psychiatry as a whole, could greatly benefit from the establishment by the Committee of Standards necessary for the attainment of a satisfactory rating. A similar function should be undertaken with respect to hospitals possibly through the addition of a permanent paid secretary to the Committee on Standards and Policies.

A third committee which requires reorganization and strengthening is that of Public Education. The Association has consistently underrated the importance of public relations. The task of maintaining these relations at a satisfactory level cannot be undertaken save by those who are especially trained and experienced in the field. A few years ago I had occasion to be a close observer of an attack made upon the mental health department of a large State by its Governor. Our lack of preparation was illuminating and tragic. There was no informed and sympathetic public opinion to which one could turn, the press had been neglected and was indifferent, large public bodies and organizations such as the State Medical Society and the State Welfare Organizations had not been kept in touch with our program. This large task can only be accomplished by the appointment of a full time public relations director.

A reorganized and strengthened committee on Public Relations working together with a committee on Standards and Policies equipped to carry out the inspection and rating of mental hospitals, has awaiting it tasks of fundamental importance in abolishing the abuses which still exist in a minority of those hospitals and in dispelling the fears and misconceptions which persist in the minds of a considerable majority of the population.

Other changes which I feel would benefit the Association are the abolition of the Nominating Committee system which, rightly or wrongly, has given rise to widespread suspicion that it serves to perpetuate cliques and factions in office. I would suggest that a committee be appointed to study and report upon the best methods to elect the officers of the Association.

The Affiliate Societies should be increased in number and the business of the Association sent down at regular intervals to them for discussion and report. In this way the opinion of the membership could be much better obtained than at present.

Finally, I would propose that the financing of this and other expansions of the public work of the Association should not be borne by the membership. We contribute our experience and our professional abilities. It is reasonable that the public, through philanthropic foundations and through the direct raising of funds which the Association is now undertaking, should finance this work which is directly and clearly in the public interest.

D. Ewen Cameron. M. D.

CORRESPONDENCE

Editor, AMERICAN JOURNAL OF PSYCHIATRY:

SIR: Authors endeavor to maintain a dignified silence toward unfavorable or even unfair reviews of their books, but when a reviewer uses downright untruths to express his personal spite through a so-called book review fairness should permit an author to ask for a correction. The more so when the false statements are published in so distinguished and influential a periodical as THE AMERICAN JOURNAL OF PSYCHIATRY.

I am referring to a review of my novel, September Remember, by Dr. John A. Larson which was published in THE JOURNAL of March, 1946. That review contains the following serious errors of fact:

1. Dr. Larson devotes about a fifth of his space to criticism of the rôle of a character he calls Joe Wales. There is no Joe Wales in September Remember, there is a Joe Kelly and there is a Sam Wales. Did Dr. Larson read September Remember?

2. Dr. Larson prefaces some of his bitterest criticism by writing, "To quote from the book:" and then does not quote the book in his entire review but quotes—for implied derision—(a) the very favorable review of this novel by Ruth Pine Furniss in *The Book-of-the-Month Club News* of May, 1945, and (b) a statement from the dust jacket of September Remember written by the publisher's publicity department. Both statements are enclosed for your verification. Neither was seen by me before the book was printed.

3. Dr. Larson writes, ". . . . the book does not do justice to . . . . the psychiatrist who is only casually mentioned." Actually the fictional psychiatrist, Dr. Sam Wales, is a prominent character in the novel and many of the book's pages (see especially Chapter 18) stress the author's belief that alcoholics can profit much by psychiatric aid. Did Dr. Larson read September Remember?

It seems fair to conclude that in writing his "review" Dr. Larson was motivated by spite against the Alcoholics Anonymous program or more probably against one of its advocates in the field of psychiatry. I am confident you will agree that this type of "reviewing" is not worthy of a publication of the high standards of THE AMERICAN JOURNAL OF PSYCHIATRY.

Very truly yours,
ELIOT TAINTOR.

Enclosures:

The May, 1945, *Book-of-the-Month Club News* review by Ruth Pine Furniss of September Remember.

The dust jacket of the same novel with "blurb" written entirely by the publicity staff of Prentice-Hall, Inc.

Editor, AMERICAN JOURNAL OF PSYCHIATRY:

SIR: In the March 1946 issue of the JOURNAL there appeared a review by Dr. John A. Larson of the book September Remember. Except insofar as it speaks favorably of Alcoholics Anonymous, I wish to disavow completely the contents of that review. I am constrained to write as I do because Dr. Larson has used Blythewood as his address and it might seem that his remarks reflect my attitudes when the contrary is the case.

As you know, when you asked me to comment on the book I suggested Dr. Larson's name because the author was a personal friend of mine and I felt that he could give a more objective account of the book than I. He had expressed interest in the subject matter of the novel, a story of a man reclaimed by A. A., and I thought could and would be fair in his discussion.

However, what he has to say is neither objective nor fair, nor even accurate. I hope you will have room to print this letter of disavowal and a letter from the author in which he points out the utter irregularity of what Dr. Larson has written.

Very truly yours,
HARRY M. TIEBOUT, M. D.,
Blythewood,
Greenwich, Conn.

Editor, AMERICAN JOURNAL OF PSYCHIATRY:

SIR: The reviewer of the book September Remember has received criticism indirectly by the author and a former colleague and has been accused of not having read the book; he must deny this allegation. Unfortunately, he did read the book and has regretted it ever since.

The reviewer must apologize for mixing up the names of the characters but since he had thrown away the copy, it is impossible to correct the technicalities; however, the fact remains that the original criticism is unchanged, that the author solves the problems of two characters, not by psychiatric assistance and by Alcoholic Anonymous but by the suicide of the girl involved, then the resultant reunion of the family. The reviewer quoted "from the book." This should have been quoted from the jacket of the book. The reviewer is not hostile to Alcoholic Anonymous but feels that the author did not do justice to it, which apparently was the aim of the book, and that it was a sloppy presentation of it.

The reviewer is perplexed at the anxiety displayed by the one who asked him to review the book and has been asked questions as to this individual's personal relationship with the author, friend clinician, etc. He has also been queried as to the identity of the author, whether or not anonymous, and if so, why? Also, the reasons for the author's interest in the questions of alcoholics and Alcoholic Anonymous. The reviewer cannot answer these questions. This book is not for a scientific library, does not add to our knowledge of treatment of alcoholics, is confusing and not worth reading by either lay reader or the psychiatrist who is interested in the problem of rehabilitation of alcoholics. For the space given the psychiatrist, the reviewer is disappointed by the apparent futility of his psychotherapeutic efforts as depicted.

JOHN A. LARSON, M. D.

Editor, AMERICAN JOURNAL OF PSYCHIATRY:

SIR: In a thought-provoking article about methods of "Commitment of the Mentally Ill" which appeared in the May 1946 issue of the JOURNAL, Drs. Overholser and Weihofen pay high tribute to the Lone Star State, claiming that "Texas is probably the most striking example of the ancient custom of equating the mentally ill person with the criminal" (p. 762). Texas, so it seems to me, has far too many boosters. The prize should be shared with its near-neighbor, Mississippi, or perhaps even awarded to it.

In 1942, I was chief of the NP section at Keesler Field, Miss. At that time, psychotic soldiers whose histories showed evidence of mental disease prior to their induction into the military service, were transferred to state hospitals rather than to veterans' facilities. Like Texas, Mississippi gives custodial care and treatment to the mentally diseased, but only after juries of their peers have convicted them of the crime of being ill.

C.S., one of our patients, came from Mississippi. We were instructed to present him at the court house at such and such a time on such and such a day. In addition, in accordance with telephoned instructions he was handcuffed and accompanied by an armed guard.

We were directed to a basement room that reeked with the odor of stale urine. It was the sheriff, I believe, who greeted us. "That the loon?" was his cheerful yell—and then he went to the 'phone. "Doc," he shouted into it, "the loon's here. C'mon over."

The physician arrived in a few minutes. He seemed earnest and efficient. "You've examined him?" he asked me. "What's the diagnosis?" I told him, he signed the certificate, said "hello" to the patient, and was gone after having spent five minutes at the most breathing in the odor of the room with us.

Next, the sheriff made a series of 'phone calls. "*He's* here," was his almost invariable statement. "He don't look so damn crazy, but he's a loon all right. C'mon over." He then thrust a document into the crook of our patient's flexed left elbow, leaped back and cried, "This here's a subpœna to be in this here court in ten minutes to see if you're as crazy as he" (pointing to me) "says you are. But you don't look like a loon to me. Are you?"

The jury was assembled in less than ten minutes. It resembled nothing so much as a jury in one of the old William S. Hart west-

erns. The patient sat handcuffed next his armed guard in one corner of the room, the sheriff presided in the center at his desk, and the jury lounged against the wall farthest from the "prisoner." Throughout the "trial," two of the jurymen indulged in a fairly loud and vociferous argument about whether the patient looked like a "loon." And throughout the "trial," two others kept rhythmically chewing their tobacco, although the one spittoon was at least ten feet away. The marksman with the goiter and the torn trousers hit the bull's eye each time, but his rival's aim was poor, probably because of a marked and recurrent left blepharospasm. And unfortunately, at the beginning of the "trial," I was between the jury and their spittoon.

"They say this guy's a loon," the sheriff began. "Any questions you want to ask?" There were—and most were directed at the patient. He maintained a stolid silence. "Can you escape from an insane asylum?" one of the jurors finally asked. He believed he could. A juror told his neighbor that this proved the "prisoner" was crazy—nobody could escape from one of those places. (But our patient did, only a few months later.) "What makes you think he's a loon?" I was asked. "Because the army needs all the men it can get," I answered, "and it needs them badly. Yet it thinks this soldier should be in a state hospital. That proves it." It did.

The wise policy of the state was upheld. The "prisoner" was adjudged " guilty" and sent to a cell to await transfer to the state hospital. As Drs. Overholser and Weihofen state (p. 768), "it is a precious heritage that gives us the right to insist that a man be served with notice of the pendency of any legal action in which his rights may be affected, and have opportunity to present, confront and cross-examine those who give testimony against him, and introduce any testimony he may have in his own defense," even though he be psychotic and handcuffed, and have an armed guard watching over his every move.

It was in 1942, in Gulfport, Miss., that this "trial" was held. Let's therefore give Mississippi the credit it deserves. It obviously is either the peer or the superior of Texas as "probably the most striking example of the ancient custom of equating the mentally ill person with the criminal." And it should be recognized as such.

Sincerely,

HAROLD ROSEN, M. D.
The Henry Phipps Psychiatric Clinic,
Baltimore, Md.

COMMENT

THE NATIONAL SOCIETY FOR MEDICAL RESEARCH

This Society, a clearing house for information on medical studies and discoveries, has been organized under the sponsorship of the Association of American Medical Colleges with the cooperation of 101 national scientific organizations.

Dr. Anton J. Carlson, professor emeritus of physiology at the University of Chicago, has accepted the presidency and Ralph A. Rohweder, 1946 president of the Chicago Junior Association of Commerce and former consultant and editor for the National Safety Council, has been appointed executive secretary. Secretary-treasurer is Dr. A. C. Ivy, head of the department of physiology, Northwestern University.

The Society has as its purpose the advancement of research in medicine, biology, pharmacy, dentistry and veterinary medicine.

Dr. Carlson emphasized that an important function of the Society is to analyze and expose the propaganda of small but highly vocal groups which object to the use of animals in the experiments without which medical science would still be in its infancy. Every year doctors and researchers must take time from their vital duties to defeat legislation proposed by these groups which would hamper or stop the work of the medical profession.

The board of directors contains an imposing list of names representing a wide range of universities and other scientific bodies. They are: R. B. Allen, University of Illinois; Alfred Blalock, Johns Hopkins University; C. S. Burwell, Harvard University; E. J. Carey, Marquette University; L. R. Chandler, Stanford University; W. C. Davison, Duke University; R. E. Dyer, National Institute of Health; H. S. Gasser, Rockefeller Institute; E. W. Goodpasture, Vanderbilt University; J. G. Hardenbergh, American Veterinary Medical Association; J. C. Hinsey, Cornell University; Victor Johnson, American Medical Association; C. D. Leake, University of Texas; E. M. MacEwen, University of Iowa; W. S. McEllroy, University of Pittsburgh; B. O. Raulston, University of Southern California; A. M. Schwitalla, St. Louis University; Isaac Starr, University of Pennsylvania; E. L. Turner, University of Washington; Floyd S. Winslow, Medical Society, State of New York.

National offices of the Society are at 25 East Washington Street, Chicago 2, Illinois.

The fact that a major activity of the National Society for Medical Research must be to combat the maneuvers of anti-vivisectionists and similar groups is another of the all too numerous painful evidences of the immaturity of a society that engenders such groups, themselves nonproductive, and who strive perversely to obstruct the labors of those endeavoring peacefully to promote human welfare.

THE MEDICAL CENTER FOR CHILDREN, BOSTON

Plans recently completed for extensive expansion and transformation of the Children's Hospital of Boston promise to make of the new institution a unique organization that will provide every type of medical service for infants, children and adolescents in both health and illness.

The trustees are planning to meet the needs of today, to anticipate those of tomorrow and to set a pattern for a pediatric service unexcelled anywhere. Clinical, research and educational programs will be combined and the facilities of the Center will be available to pediatric services not only in New England but throughout the country.

New developments will include the *Child Health Service,* which will comprise all aspects of preventive pediatrics to promote healthy growth and development, physical and mental; a *Unit for Adolescents,* which

will devote special attention to the problems and disabilities of this life epoch that are adequately provided for neither in general hospitals for adults nor in special hospitals for children; a *Neurological Institute for Children* in which will be focussed all the work in neurology, neurosurgery and psychiatry of early life, thus filling another gap in the usual health services for children; an *Institute of Pediatric Research* which will include laboratory divisions representing the various medical sciences, and where special techniques applicable to the problems of childhood and adolescence will be available.

The facilities of the Medical Center for Children will be utilized for teaching Harvard Medical School students, for the instruction of graduate physicians whencesoever, and for the specialized training of nurses, physiotherapists, social service workers and technicians.

As it gets under way the new center will greatly enlarge existing facilities. Its scope is extraordinarily wide and its planning looks far ahead. The prospect is that of a complete diagnostic and treatment service for young patients anywhere in this country or from beyond its borders.

DR. CHENEY RETIRES

After thirty-five years in the psychiatric services of the State of New York, Dr Clarence O. Cheney asked to be relieved from active duty in his most recent post, that of medical director of the New York Hospital, Westchester Division, and his retirement became effective July 1, 1946.

For many years Dr. Cheney has been a leading figure in American psychiatry. It will be recalled that during the second decade of this century he and Kopoloff, by careful experimental work, were able to correct a tendency to over-enthusiasm concerning the results of treatment based on the focal infection theory, at that time vigorously promoted. Dr. Cheney's professional connections have been many and he has served on the staffs of various hospitals and clinics throughout the state. Before going to the New York Hospital, Westchester Division, he had been superintendent of the Hudson River State Hospital for five years and for another five years director of the New York State Psychiatric Institute and Hospital. He occupied the chair in psychiatry at Columbia University, and later was professor of clinical psychiatry at the Cornell Medical School. This latter position he will continue to hold and will maintain connection with the New York Hospital and other institutions as consulting psychiatrist.

Dr. Cheney served five years as secretary of The American Psychiatric Association and in 1935 was elected president of that body. In his presidential address at the annual meeting in 1936, dealing with the past, present and future of American psychiatry, he foresaw that general medicine and psychiatry must continue to draw more closely together and that with increasing infiltration of psychiatric methods into medical practice there might well be a tendency to "decentralization from state hospital care to local general hospitals," and further, "a decreasing tendency to send psychiatric patients immediately to state hospitals, and more of an inclination to care for them in their homes, under private or clinic medical supervision, public health nursing and social service care." The progress toward community psychiatry that Dr. Cheney then invisioned has since been continued and, but for the Hitler regression, would have been much further advanced.

As a tolerant, progressive and withal conservative scientist, Dr. Cheney represents a notable stablizing influence in contemporary psychiatry.

PRESIDENT HAMILTON HONORED

At the recent commencement exercises at the University of Vermont the honorary degree of Doctor of Science was bestowed upon Dr. Samuel W. Hamilton, President of The American Psychiatric Association. The citation follows:

SAMUEL WARREN HAMILTON

Because you have devoted your professional career to the study of psychiatry and to the advancement of the medical care of the mentally ill; because you have achieved a position of distinction in your chosen profession and promoted its advancement; and because you have brought distinction to your alma mater, we delight to honor you. By virtue of the authority vested in me, I confer upon you the degree of Doctor of Science, *Honoris Causa*, and admit you to all its rights and privileges.

Dr. Hamilton is a native of the Green Mountain State, and it is peculiarly fitting that the university from which he graduated in 1898 should now in his presidental year pay him this well merited tribute.

It is not necessary here to recall the details of Dr. Hamilton's professional career. The surveys of mental hospital services that he has conducted in all parts of the United States and in Canada have caused him to know and be known by a greater number of the practicing psychiatrists of the continent than has probably been the experience of any other officer of the Association. His authority in hospital planning, organization and administration and in the jurisdictional matters of state control is unquestioned.

The JOURNAL is happy to join in congratulations to Dr. Hamilton upon the honor he has received at the hands of his alma mater.

DR. ADOLF MEYER'S EIGHTIETH BIRTHDAY

Friday, September 13, was the eightieth birthday of Dr. Adolf Meyer. To celebrate this memorable occasion Mrs. Meyer invited to a birthday dinner his former assistants still in Baltimore together with Dr. Ruth E. Fairbank of Mt. Holyoke College, Dr. Alexander Leighton of Washington, D. C. and Mr. Walter Lageman of New York. There were twenty-four at the table and to judge by the laughter from the far corners there were as many stories of the early days of the Phipps Clinic going the rounds there as at Dr. Meyer's end of the table.

Dr. Wendell Muncie acted as master of ceremonies, and brief after dinner speeches were made by Drs. Leo Kanner, C. H. Rogerson and Alexander Leighton. Dr. Meyer was presented a leather bound volume of personal letters from those present—each a personal evaluation of Dr. Meyer's influence on the writer. A congratulatory cablegram from Dr. Oskar Diethelm, now visiting in Switzerland, was read.

Dr. Meyer was in fine form. Mrs. Meyer's dinner was never surpassed, and the guests were all delighted to participate again in the Birthday Party, which each fall had been the occasion for the first social gathering with the new and old staff members of the clinic.

NEWS AND NOTES

DR. SLEEPER HEADS AUGUSTA STATE HOSPITAL.—Appointment of Dr. Francis H. Sleeper as superintendent of the Augusta (Maine) State Hospital and consultant on hospitals and mental health to the Maine Department of Institutional Service is announced by Harrison C. Greenleaf, Commissioner. Dr Sleeper, who has resigned as Assistant to the Commissioner of Mental Health in Massachusetts reported for duty September 1, 1946. He succeeds Dr. Forrest C. Tyson, retired.

SCHOOL OF APPLIED PSYCHOANALYSIS.—The New York Psychoanalytic Institute offers courses during the academic year 1946-47 for physicians, obstetricians, pediatricians, dentists, nurses, social workers, psychologists, educators and sociologists, The courses run from Sept. 23 to June 13 and are grouped in trimesters of 12 evenings each.

Applications may be made to the Institute at 245 E. 82d. St., New York 28, N. Y.

DR. WALL HEADS NEW YORK HOSPITAL, WESTCHESTER DIVISION.—Dr James H. Wall has been appointed medical director of the venerable New York Hospital, Westchester Division (formerly Bloomingdale Hospital) to succeed Dr. Clarence O. Cheney who recently retired.

Dr. Wall, a graduate of Jefferson Medical College, Philadelphia, and a diplomate of the American Board of Psychiatry and Neurology, has been on the staff of the New York Hospital since 1929 and assistant medical director since 1936. He had also served as director of the laboratory, as head of the women's department and as psychiatrist to the out-patient department of the Payne Whitney Clinic and is thus well equipped to assume the direction of the hospital.

Dr. Wall is assistant professor of clinical psychiatry at Cornell University Medical College. He assumed his new duties at the New York Hospital, July 1, 1946.

AMERICAN GROUP THERAPY ASSOCIATION.—The annual meeting of the American Group Therapy Association will be held at New York City in January, 1947. The program will include a session on group therapy in private practice; a session on parallel treatment of a group of preschool children with a group of their mothers; also a session on research in group therapy and a report on a training program for workers in group therapy.

Headquarters of the Association: 228 E. 19th St., New York 3, N. Y.

AMERICAN BOOK CENTER FOR WAR DEVASTATED LIBRARIES, INC.—During the war, the libraries of half the world were destroyed by the impact of battle and in the fires of hate and fanaticism. There is an urgent need for their replenishment, *NOW*. The American Book Center for War Devastated Libraries, Inc., has come into being to meet this need. It is a program that is born of the combined interests of library and educational organizations, of government agencies, and of many other official and non-official bodies in the United States.

The American Book Center is collecting and is shipping abroad scholarly books and periodicals which will be useful in research and necessary in the physical, economic, social and industrial rehabilitation and reconstruction of Europe and the Far East. The Center cannot purchase books and periodicals; it must depend upon gifts from individuals, institutions and organizations.

WHAT IS NEEDED: *Scholarly books* published in the last decade in general science and technology, *medicine and the allied sciences,* dentistry, chemistry, physics, biography, the social sciences, the fine arts and fiction of distinction. *Periodicals* in any of the above subjects.

All shipments should be sent prepaid via the cheapest means of transportation to the

American Book Center, c/o The Library of Congress, Washington 25, D. C.

VETERANS ADMINISTRATION MENTAL HEALTH POLICY.—An expanded consultation and treatment program for World War II veterans with service connected psychiatric disabilities has been authorized by Veterans Administration. Deputy administrators of the 13 branch areas have been given permission to establish mental hygiene clinics in any of the agency's 70 regional offices when such additional facilities are rated as "necessary" and the professional staff can be employed within existing personnel ceilings. The mental hygiene clinics will render treatment on an out-patient basis, with emphasis on group therapy.

Thirty-two clinics for mentally sick veterans previously had been authorized for various metropolitan areas and approximately half are now fully staffed and operating. In general the treatment team at the clinic is composed of one psychiatrist, one clinical psychologist and two social workers for each group of 50 patients.

TREATMENT OF EMOTIONALLY DISTURBED CHILDREN, ILLINOIS.—Plans for a new institution in Illinois for the treatment of "Emotionally disturbed children" are presented in a booklet issued by the Illinois Children's Home and Aid Society, Chicago. The emotionally disturbed child is characterized as one "who wears out one foster-house after another and is *persona non grata* in the usual institution because he either disrupts the institution or cannot fit into the normal program."

The committee appointed to draft specifications for the new institution points out that it must serve three purposes—treatment, teaching and research; whereas existing agencies for the most part are not equipped to undertake either research or teaching.

Three departments of the University of Chicago (pediatrics, psychiatry, social service administration) will collaborate in the program, and it is hoped that a suitable site for the proposed institution may be found on the suburban South Side where such collaboration can be carried on to the best advantage.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY.—The executive offices of the American Board of Psychiatry and Neurology, Inc., have been moved from Washington, D. C., to 102-110 Second Avenue, Rochester, Minnesota. Dr. Francis J. Braceland, who was recently appointed consulting psychiatrist to the Mayo Clinic, was elected secretary of the American Board at the May meeting in Chicago and has removed to Rochester.

Dr. Braceland succeeds Dr. Walter Freeman, one of the founders of the American Board of Psychiatry and Neurology in 1934 and who had been its secretary since that time.

The next meeting of the Board will be held in New York City, December 16 and 17, 1946. Applications for examination should be sent to the secretary at once. The December meeting is the last opportunity for the consideration of candidates who desire certification upon record.

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION.—The twenty-sixth annual meeting of the American Occupational Therapy Association was held in Chicago, August 10-16, 1946. More than 500 members and guests were in attendance.

This was the first meeting since 1941 and a comprehensive program, occupying a full week, had been prepared to bring together recent developments and current trends in this field. Among the topics receiving special consideration were occupational therapy in the Veterans Administration, programs for tuberculous patients, the future of occupational therapy in the Army and in the U. S. Public Health Service rehabilitation program, graded programs for cardiacs, paraplegics and other organic neurological types. Recreational therapy, music therapy and bibliotherapy were also discussed.

To Miss Doris Beasley and the members of her committee is due great credit for the success of this meeting.

Officers elected for the coming year are:

President: Mrs. Winifred C. Kahmann, Indiana University Medical Center, Indianapolis, Ind. Vice-president: Miss Marjorie Fish, University Extension, Columbia University, New York, N. Y. Board of Management: Miss Beatrice Wade, Associate Professor and Director of Occupational Therapy, College of Medicine, University of Illinois, Chicago, Ill., and Miss Mabel Davis, Chief Occupational Therapist, Craig Colony, Sonyea, N. Y.

OHIO'S MENTAL HEALTH PROGRAM.—At a recent special session of Ohio's 96th General Assembly, the legislature approved, for the remaining six months of 1946, total appropriations of $3,727,420 for an emergency program for mental health. These funds will provide operating budgets for the newly opened units at Tiffin, Mt. Vernon, Cambridge and Hoover receiving hospital in Cleveland; will permit an 8-hour day for employees in the state institutions; will supplement present expenditures in state institutions to meet in part the increased costs of food, fuel and clothing; and will meet emergency needs for improvements and equipment at Tiffin and Mt. Vernon and other facilities. Since Governor Lausche had requested a total of $6,205,980 for the mental health program, the amount voted does not provide for a supplemental appropriation for building construction, funds to increase the amounts of food, to improve the diet of mental patients, to raise the salaries of personnel to overcome shortages, to employ additional personnel or to organize mental hygiene clinics in rural areas. A significant and hopeful feature of the special session was the demonstration of wide public support for adequate mental health appropriations.

LOUIS GROSS MEMORIAL LECTURE.—The ninth annual Louis Gross Memorial Lecture will be delivered under the auspices of the Montreal Clinical Society at the Jewish General Hospital, Montreal, on Wednesday, October 23, 1946, at 8.30 p.m., by Dr. Roy R. Grinker, director of the Institute for Psychosomatic and Psychiatric Research and Training of the Michael Reese Hospital, Chicago. The subject will be "Psychiatric Objectives of our Time."

RESEARCH POSITIONS AT WESTERN STATE (PA.) PSYCHIATRIC INSTITUTE.—Twelve positions for research in psychiatry and related fields at the Western State Psychiatric Institute and Clinic, Pittsburgh, have been authorized by the Department of Welfare of the Commonwealth of Pennsylvania.

These new positions provide for the appointment of properly qualified senior and junior research workers in psychiatry, internal medicine, biochemistry, neuropathology, neurophysiology, and clinical psychology. Several positions (psychology and neurophysiology) are currently filled.

The Institute is the teaching and research hospital of the Pennsylvania mental hospital system which includes twenty-one hospitals and institutions with an average of 40,000 patients. In some instances research at the Institute will be coordinated with teaching at the University; in such cases the applicant for appointment, and his qualifications, must meet also with the approval of the dean of the School of Medicine.

Interested persons may obtain further information by writing to the Director of the Institute, Grosvenor B. Pearson, M.D., O'Hara and DeSoto Streets, Pittsburgh 13, Pennsylvania.

SALMON LECTURES, 1946.—The Salmon Committee on Psychiatry and Mental Hygiene of the New York Academy of Medicine has named Dr. David M. Levy of New York as the Salmon Lecturer for 1946. Dr. Levy's subject is "Excursions in the New Fields of Psychiatry," and his lectures will be given on three successive Wednesday evenings, November 6, 13 and 20, in the New York Academy of Medicine Building, 2 East 103rd Street, New York City. Members of the medical profession and their friends are invited to attend.

MENTAL HYGIENE SOCIETY, HAWAII.—Chairman Vivian Johnson, personnel committee, The Mental Hygiene Society of the Territory of Hawaii, announces that Mrs. Margaret Hackfield, former executive secretary of the Washington Mental Hygiene

Society, has been appointed executive secretary of the Hawaiian Mental Hygiene Society and will soon take up the duties of that office in Honolulu.

ASSOCIATION FOR RESEARCH IN NERVOUS AND MENTAL DISEASE.—A joint meeting of the Association for Research in Nervous and Mental Disease and the International League Against Epilepsy will be held December 13th and 14th at the Waldorf Astoria Hotel in New York City. The subject for discussion will be "Epilepsy."

Correspondence concerning this meeting may be addressed to Thomas E. Bamford, Jr., Secretary, Association for Research in Nervous and Mental Disease, 115 East 82nd Street, New York 28, New York.

BOOK REVIEWS

THE UNKNOWN MURDERER. By *Theodor Reik.* Translated from the German by *Dr. Katherine Jones.* (New York: Prentice-Hall, Inc., 1945.)

"The Unknown Murderer," consisting of 244 pages with copious bibliographical notes and an index, stresses the need for greater emphasis on understanding the unknown motives of criminals and the extent of their ego involvement as a method of approach for evaluating the psychogenesis of crime.

In the past, crime prevention, punishment and reformation have been concerned in large measure with interest in the collection, interpretation and uses of clues; and in interpreting circumstantial evidence. These are but links in the chain of proof. Their evaluation is often influenced by individual or personal psychic phenomena involving hasty or prejudiced conclusions; and these are based upon psychological or unconscious impressions or "self-evident truths." These often minimize a consideration of true evidence. For example, suspicions against competent evidence may be created by such factors as previous history of crime on the part of the accused, an attitude of silence, or the giving of contradictory testimony.

Upon this, the author remarks that the criminologists' thinking is rarely logical and illustrates by citing what has been called logical errors that are mistaken for the purely intellectual point of view of the observer. In reality these have psychological connections and often influence the fixing of a motive.

The author believes that the correct answer to seven questions will explain every crime. These include "What" has happened? "Where"? "When"? and "Why"? did it occur? "Who" was the victim? "With"? what and the "Way"? it was done? He also believes that the "Way" a thing is done often throws light upon "Who" did it, since it reflects in part the characteristics of a person in action.

The formal criminologist approach, however, is generally through the medium of inanimate or objective clues that tell little unless they become the object of activity of the person sought. Errors in crime detection, in criminologists' procedure and in judgments, tend in the direction of what has long been considered suitable to the deserts of individual criminals. This is illustrated by the following summation of evidence when pronouncing sentence on an accused murderer. Thus "the accused is a cunning, crafty fellow, without scruples, whom one might believe capable of murder."

The author comments on the value of psychoanalysis in courts as follows: "The admission of analysis into court . . . . foreshadows bizarre and terrible happenings—a witches' sabbath of commonsense, where the Œdipus complex is used as evidence against the accused, and his unconscious motives, as a proof of his guilt." He specifically states, "I do not wish for the introduction of psychoanalysis into court," and "The present state of psychoanalysis is neither suited nor competent to solve the question of guilt or innocence."

He anticipates, however, that "changes are bound to take place in penology"; "the result of the new insight we shall have gained from the modern science of psychological processes, which shows that the concept of guilt and innocence are inadequate." In ancient times, the concept of penal law was either absolute guilt or absolute innocence. The individuality of the criminal did not enter into the question. The fact of the deed was decisive and "the doer" was responsible even if he had not willed the deed or had only been an unintentional instrument of it. In the author's opinion, "there is a considerable difference between this point of view and that in which, not only the deed, but also subjective guilt and malicious intent of the doer, is a deciding factor."

W. L. T.

WHAT PEOPLE ARE—A STUDY OF NORMAL YOUNG MEN. By *Clark W. Heath,* in collaboration with *L. Brouha, L. W. Gregory, C. C. Seltzer, F. L. Wells, and W. L. Woods.* (Cambridge: Harvard University Press, 1945.)

This book consists of a review of some of the work that has been done by the Grant study since its inception in 1938. The purpose of this study, to quote the authors, was: "To achieve a more thorough understanding of human behavior characteristics, and to interpret them more precisely and wisely." The subjects of this study were Harvard College sophomores who were selected primarily on the basis of the "soundness" of their adjustment, not only to their specific college activities but life situations in general. The presentation is clear and apparently directs itself primarily to non-specialists in the fields which were investigated. It must be stated, however, that although an attempt is made to use popularly intelligible language and steer clear from technical terms, this is not done at the expense of exactness. Because of the brevity of the presentation, the book itself is actually a review of the work done and must be read *in toto* by those who wish to get an adequate idea of the results and their applicability. All that the present review can give is an indication of the general trends of the study.

The students selected were subjected to the following series of studies: a complete physical examination including a medical history and laboratory tests, physiological observations, psychological tests, anthropometric measurements and finally psychiatric personality evaluation. The main emphasis of the study was on the observation and critical analysis

of data characteristic of adequately adjusting persons rather than a search for and elimination of abnormal features. The results of the psychiatric examination are based upon the observation of personality functions as they were manifested in the every-day life of the subject, and care is taken to record them in terms that are simple but at the same time precise in their relationship to adjustment. On the basis of the material studied, a series of 25 outstanding features was abstracted and the absence or presence of these in the various subjects were recorded. The personalities of the subjects were classified in relationship to these traits into three groups: A, B, and C, the first representing the highest degree of "soundness," the last the lowest, and B, an intermediate group. The physical examination and history follow the usual routine of such examinations, emphasis being placed in the latter upon occurrence of common diseases of childhood and early adolescence, and the former giving an account of the structure and functions of the various organ systems of the body. The physiological examination, which takes up the functions of such systems as the cardiovascular, respiratory, muscular, etc., places emphasis on an evaluation of dynamic adjustment to stress situations rather than simply recording static figures. The anthropometric measurements were mainly concerned with the evaluation of the somato-type with sub-divisions into four groups of strong, moderate, weak and very weak masculine components. The psychological examinations consisted of standardized intelligence measurements in addition to the more elaborate projective tests. The socio-economic study concerned itself with the family background, the milieu, the early home setting and the person's own socio-economic adjustment to date. Since this study was started in 1938 the investigating group has continued to follow the subsequent adjustment of the subjects studied to determine the validity of the conclusions reached in the original survey. In regard to this, it is interesting to note that the large majority of the men studied have subsequently entered military service and this afforded an opportunity of determining how these men have been able to adjust to the stress of military experience.

The author very wisely refrains from using the results of this study as a basis for conclusions in regard to average normal people. It is quite apparent that the material consisted of a group of highly selected individuals and that further work should be done with representatives of other groups so as to widen the scope of the applicability of the findings. The chief value of this work is that the emphasis is correctly placed upon adjustment of the person to a particular type of social setting, rather than the relative degree of abnormal manifestations. Occasionally this tendency is perhaps somewhat overemphasized. As the authors put it, "it was unnecessary to assume gradations from abnormal to normal behaviour" and that "the hypothesis of a continuum between the mentally ill and the normal did not prove to be a sound mode of approach in this study." Whether such a cleavage can be made successfully is a question, and in places in this book the point seems to be a bit forced. An interesting feature of the study, particularly in the case of the physiological and psychological investigations, is the very wide range of variability that is encountered within the ranks of those normally adjusting young men. It points out in no uncertain terms the fallacy of sticking to rigid limitations in making our evaluations as to who is likely to break down under physical or psychological stress and also indicates the importance of taking into consideration the types of stress to which a given individual is subjected. No matter how well adjusted a person may seem to be he has his vulnerable spots and will obviously adjust less well when the stress situation calls for a particular effort that must be carried by the personality component which is vulnerable. As a starting point in the direction of studying normal persons, this study is of great value. It is true that as one broadens out into other walks of life, some of the standards may have to be revised, and the emphasis shifted in one direction or another. However, here is a pattern which is well worthwhile following, and a contribution which was long needed in the study of human nature.

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ALCOHOL, SCIENCE AND SOCIETY: TWENTY-NINE LECTURES WITH DISCUSSIONS AS GIVEN AT THE YALE SCHOOL OF ALCOHOL STUDIES. (New Haven: Quarterly Journal of Studies on Alcohol, 1945.)

The very important knowledge in this new book deals with the basic problems of alcohol, the question of heredity, personality make-up, children of alcoholic parentage and the effects of excessive drinking upon the institution of marriage and the family; also, the metabolism of alcohol, its physiological effects in large and small amounts, and chemical tests for alcohol in the blood; and, the legal aspects of prohibition, analysis of wet and dry propaganda, the philosophy of the temperance movement, the rôle of religious organizations, the fellowship of Alcoholics Anonymous and the various psychiatric and medical methods of therapy.

This volume was written by men who have had a wide experience in the scientific research of the many problems of alcohol and alcoholism. In a chapter on nutrition, Dr. Norman Jolliffe of the New York College of Medicine reminds the reader that he has repeatedly called attention to the fact that certain disturbances observed in chronic alcoholism are not caused directly by alcohol and that they are secondary to nutritional deficiencies that might develop without the use of alcohol. They do develop, however, more frequently during the excessive use of alcohol because this excess interferes with the normal diet. Polyneuropathy (polyneuritis) is caused by deficiency of thiamin or vitamin B_1. In Wernicke's syndrome there is also an acute complete deficiency of vitamin B_1. Pellagra is found in chronic alcoholics; it is a deficiency of niacin and nicotinic acid. The discarded term, encephalopathia alcoholica, was once believed to be

caused by the direct action of alcohol, but now it is known that encephalopathias, even when they occur in alcoholics, are caused by a nicotonic acid deficiency. In Jolliffe's research work on this subject he discusses one particular disease which may be associated with alcohol. It is Läennec's cirrhosis or "hobnail" liver. This disease may develop in men and women who were never drinkers of alcohol. But the fact remains that it does occur more frequently in very heavy drinkers than in moderate drinkers or abstainers. There are reasons to believe that nutritional deficiencies of some sort are a factor in causing Läennec's cirrhosis of the liver. It is certain that the pathological changes in this organ are not caused by the direct action of alcohol any more than is the analogous situation, beriberi, but the particular nutritional deficiency at the bottom of the disease has not yet been conclusively demonstrated.

Another chapter is a critical analysis of general expenditures in connection with inebriety. Dr. Benson Y. Landis of Yale University finds that the standards of living of excessive drinkers and their families are without question greatly lowered because of expenditures for alcohol beverages, apart from wage losses due to inebriety. He estimates from national figures of 1940 that excessive drinkers made an average expenditure of $6 per week per person for alcoholic beverages. And he concludes that since the majority of these alcoholics belong to the lower income classes, the adverse effect of this specific expenditure on the living standards of this population group is evident.

The serious efforts of developing and carrying out a nation-wide program of education, social responsibility and the rehabilitation of the individual alcoholic, as recorded in this book, deserve the support of the entire medical and allied professions.

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Outline of Psychiatric Case Study. Second Edition. By *Paul William Preu, M. D.* (New York: Paul B. Hoeber Inc., 1943.)

This new edition of a book which has already proven useful to medical students and interns is a primer of psychiatric procedure outlining step by step the technique by which an adequate psychiatric history is taken and recorded, and a psychiatric examination and clinical approach is carried out. This edition contains many revisions as well as new sections, including an outline for the psychiatric case study of the child. Brief reference is made to the place of psychological and social case-work investigations and consultations. Sample charts and suggested forms for the medical history, the physical examination and the nursing record are provided.

A guide and outline such as this is the necessary companion of every new student of psychiatry. Some will be annoyed because it fails to deal adequately with their special point of interest. Others will be impatient at its rather tedious completeness of detail. It would take several hours to complete a psychiatric history and examination if all the suggested questions were asked and all the possible leads followed to a definite conclusion. As the author points out, however, it is not intended that all the suggested points should be covered in a mechanical way with all patients. An intelligent selection of significant factors must of course be made. A brief index is provided.

J. D. M. Griffin, M. D.,
National Committee for Mental Hygiene (Canada), Toronto.

Everyday Psychiatry. By *John D. Campbell, M. D.* (Phila.: J. P. Lippincott Co. 1945.)

The author, a Commander in the United States Naval Reserve, has written a book which is intended not as a general textbook in psychiatry, but one which he says "seeks to fill a gap between medicine and psychiatry."

He concludes Chapter I with the statement: "The present volume has two specific purposes; first to describe the borderline mental condition in personality terms so that the physician, medical student or social worker may become acquainted with this psychiatrically important group of people; and, second, to stress the constitutional and physiologic aspects of personality in an attempt to balance the overwhelming influence of the environmental schools."

In the beginning the author states that there are four basic personality traits: intelligence, conscience, emotional reaction, and psychosexual development; and two secondary personality factors which he labels sociability and special modes of adjustment. He claims that the four basic personality traits "are inherited, constitutional and immutable, and are not subject to change by environment, education or training."

Although the book thus starts with extreme emphasis on constitutional factors and states that they are unmodifiable, the author becomes less rigid as he goes along. He does not feel that nothing can be done for such cases, but has devoted considerable space to the re-education and rehabilitation of psychopathic personalities.

The material presented is obviously influenced by the author's war experiences, and his method of study and treatment is in accord with what was practiced in the better naval and military hospitals throughout the country.

The references to the literature show wide reading and general familiarity with the subject. It is unfortunate that the original formulations would seem to limit the author's approach and may possibly prevent readers from continuing on with the book. Aside from this type of classification of personality, which to the reviewer seems to offer nothing of real value, the only other serious criticism would be in the chapter dealing with intelligence. Here we have an implicit reliance upon I.Q. which is hardly in accord with modern psychiatric thought. When we are told that doctors have an I.Q. from 110 to 120, but that story writers, song writers, movie producers and successful admirals and generals have an I.Q. from 130 to 180, we become more skeptical. When we are

finally told that Columbus, Edison, Dickens, Edgar Allen Poe, Hitler and Napoleon had I.Q.'s of 180 or over, it seems difficult to take the discussion seriously. One is also skeptical about accepting a statement such as, "The occupational status of the individual reflects the intelligence and degree of conscience, therefore offers a practical clue to these personality factors."

In the formulation of personality the author claims that emotional reaction is a function of the autonomic system and that psychosexual development is dependent upon the endocrines of the autonomic nervous system. The idea that neither the autonomic nervous system nor the endocrines undergo change or are capable of modification by environmental influence, is hardly in accord with our present medical knowledge.

The reviewer would conclude, therefore, that aside from the formulation of personality and the discussion of intelligence, the book is in keeping with modern psychiatric thought and is well worth perusal.

K. M. B.

THE PSYCHOLOGICAL FRONTIERS OF SOCIETY. By *Abram Kardiner*, with the collaboration of *Ralph Linton, Cora du Bois, and James West*. (New York: Columbia University Press, 1945.)

The need has been increasingly felt in recent years for a thoroughgoing integration of data, observational techniques, analytic procedures, and explanatory concepts from the fields of anthropology, psychiatry, psychology, and sociology to help us arrive at an understanding of the development of the individual in his culture. This volume by a psychiatrist, with the assistance of sociologists and anthropologists, is an ambitious step in the direction of such cross-disciplinary integration. Using as his major tool the concept of basic personality type, which he has already defined in his earlier writings, the author seeks to examine the usefulness of this concept in predicting individual development, cultural projective systems, and social change. The book is at once a testimonial to the richness of this approach and a guidepost to its hazards.

In so complex and inclusive an undertaking there are inevitably some decisions concerning theoretical framework, research tools, and sources of data which must be made before the analysis can even be started. On these points the author is explicit and consistent. The theoretical framework is psychoanalytic. "The only psychology that can approach these problems with any hope of success is psychoanalysis" (p. 22). The central research tool is the basic personality structure, described as a "group of nuclear constellations in the individual" (p. 24), derived from the individual's early experiences, tending to be similar for different individuals within the same society, and forming the basis for projective systems expressed in religion and folklore. The sources of data from which the basic personality structures are derived and against which they are later tested are three socio-anthropological studies: the Comanche (based upon the work of Linton), the Alorese (compiled from duBois' *The People of Alor*), and Plainville, U.S.A. (based upon the book by James West). A final chapter, actually a condensation of a forthcoming book, examines the applicability of the concept of basic personality structure to the history of Western civilization.

If he accepts the author's decisions on these points, the reader may also accept the results of the analysis with little difficulty. Take, for example, the 260-page study of the Alorese. Included in these pages are the ethnographer's report of Alorese life, information concerning family attitudes, child-rearing, adult behavior, together with projective material related to myths, legends, dreams, and religion. These are the raw materials from which the psychiatrist, through "psychodynamic analysis," derives the basic personality structure. In this case, early experiences of maternal rejection and lack of affectional ties, plus hints of potential but unexpressed aggression, lead the author to describe the basic Alorese personality as "suspicious, mistrustful, lacking in confidence, with no interest in the outer world" (p. 170).

Having so delineated the basic personality structure, the author next attempts to check on his conjectures through the psychoanalytic study of the biographies of seven Alorese, and through the comparison of blind analyses of 38 Rorschach protocols (by Oberholzer) with the postulated personality types. The limitations of these latter procedures are fully recognized by the author. Certain aspects of the basic Alorese personality type are "confirmed" by the biographical and Rorschach analyses; new aspects of the personality are "revealed," and relationships between personality formation and social configuration are "established." New facts are added from these sources, and the personality pattern synthesized in psychoanalytic terms. ". . . . this is the combination which supplies the crucial information that the integrational series whose projective manifestations we have used as guides were started in the nursing period. Nothing else could account for this particular combination. . . . . When the strong tie to the parent is interfered with and there is no introjection of the parental imago, the foundation for an adequate superego is spoiled" (p. 251). If he accepts the author's basic assumptions, then, the reader will be led, through the logically consistent treatment which follows, to accept the author's conclusions.

On the other hand, some readers—among them the reviewer—will certainly question the author's decisions regarding the universal applicability of psychoanalytic theory, regarding the concept of basic personality type, and regarding the technique of analyzing anthropological data. Some readers—among them the reviewer—will therefore question the results of this analysis. The breadth of current experimentation on determinants of personality and the variety of theories offered to explain personality differences demonstrate unequivocally that no

one concept of personality structure can justifiably claim exclusive rights to the explanation of human behavior. In the light of modern learning theory it is altogether possible that the rejected Alorese child, to return to our example, learned through deprivation that basic satisfactions were not provided by certain adults, and that he carried over (generalized) to other adults in his environment attitudes of anticipated frustration, and hence withdrawal. As a matter of fact, in many instances throughout the book (the illustrative case on pp. 17-21, for example, or the concept of "symbolic extension" on p. 39), where the issue of the psychoanalytic versus the learning theory seems joined uncompromisingly, closer inspection might show the difficulty to be largely a semantic one.

Some readers—among them the reviewer—will further question the wisdom of defining the basic personality type for the Alorese in terms which imply its generality, and then selecting as examples for analysis such different personalities as, say, Mangma and Rilpada. Granted that deviation from the "norm" is both expected and instructive, and granted also that practical considerations limit the choice of cases, the question of whether or not the sample of behavior chosen to validate a concept is representative cannot be overlooked. A further objection can be made to Kardiner's use of Rorschach materials to check on the predicted basic personality type: ". . . . once we are told by the Rorschach that certain end results can be identified, It is a relatively easy matter to reconcile them with more basic trends" (p. 245). If later independent observations—either biographical or Rorschach—are to be employed as validating criteria, a rigorously scientific procedure dictates that they should not be used also as a means of re-interpreting the observations which are to be validated.

These criticisms stem largely from differences in theoretical predisposition and from a conviction that, even in dealing with the tremendously rich and often diffuse materials of field study, the researcher is obligated to introduce certain controls into his procedures. The criticisms should not obscure the contributions which this ambitious undertaking makes to the difficult but essential task of interdisciplinary integration. These contributions include the forging of an analytic tool for the understanding of individual personality development, the testing of that tool in a wide variety of culturally different circumstances, a re-emphasis upon and a re-evaluation of the importance of early childhood training in later personality structure, and the extension to the analysis of normal personality development of techniques developed in clinical psychopathology. Each one represents an important step in ordering the closely-related fields of sociology, anthropology, psychiatry, and psychology. But each step is taken along a narrow path, where detours into tempting byways are forbidden by a code of exclusive devotion to psychoanalytic theory.

It has frequently happened that a book written vigorously and consistently from one point of view has stimulated progress in the field as much by inviting criticism as by positive contribution. In the foreword to this volume one of the authors invites just such opposition by stating that the basic hypothesis underlying this study "impose(s) on those who do not accept it the burden of finding some better explanation of the observed facts" (xii). It is time that challenge was accepted. It is time for persons trained in psychology, psychiatry, and anthropology to assume responsibility for evaluating the usefulness of the many and varied modern theories of personality in accounting for cultural differences in personality. Until this is done, the critical reader will be forced to accept or reject such studies as the present one on the doubtful grounds of internal consistency or emotional preference.

ANN MAGARET, PH. D.,
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A ASSISTÊNCIA A PSICOPATAS NO ESTADO DE SÃO PAULO (CARE OF THE MENTALLY ILL IN THE STATE OF SÃO PAULO). By *A. C. Pacheco e Silva.* (São Paulo, Brazil, 1945.)

The fifteen years during which Dr. Pacheco e Silva served as general director of mental health services for the state of São Paulo (1923 to 1937) witnessed a remarkable expansion in the facilities for the care and treatment of mental patients in the state. The story of this expansion, as well as the previous history of psychiatry in that part of Brazil, are told by Dr. Pacheco e Silva in an interesting brochure replete with illustrations reflecting the development of the various departments and hospital systems under his supervision.

Although the first hospital in São Paulo for the exclusive care of the mentally ill was established in 1852, it was not until 1896, after the appointment of Dr. Francisco Franco da Rocha to the state hospital directorship, that a truly scientific orientation became apparent, with reforms culminating in the creation of the Hospital of Juqueri, made up of the first great Colony-Hospital of Juqueri, and the Central Asylum. These services were augmented from time to time throughout the administration of Dr. da Rocha, who, upon his retirement in 1923, selected Dr. Pacheco e Silva as his successor.

In 1923, Dr. Pacheco e Silva was just on the threshold of his notable career, but he was already imbued with an enormous enthusiasm for psychiatry. Under his administration, scientific research as well as the clinical, administrative and material aspects of state hospital care made tremendous strides. The Laboratory of Biology and Pathological Anatomy was completed and splendidly equipped, and the services of the noted European anatomo-pathologist, Constantino Tretiakoff, were secured, Much original work was accomplished and recorded, particularly in the "Memórias do Hospital de Juqueri," which was succeeded in 1936 by the journal "Arquivos da Assistência a Psicopatas do Estado do São Paulo." The medical library established by Dr. Pacheco e Silva in the Hospital of Juqueri constitutes the most complete

neuropsychiatric collection in Brazil, with a constantly growing catalogue of books and journals. Specialized clinics—surgical, medical, pediatric, ophthalmological, etc.—were set up and a section of radiology was established. Patients with tuberculosis were segregated in an adequate establishment under special care, as were patients with neurosyphilis. Existing installations were expanded and modernized and new pavillions and agricultural colonies were created, always according to the policy of maximum economy consistent with patient comfort. By 1932 the Colonies of Juqueri amounted to six, the most recent of which was established that year on new plans calling for small economical pavillions arranged in semi-circle within pleasant gardens.

The General Directorate of Mental Hospital Care, which was created by law in 1930, embraces four subdivisions—Clinical Psychiatry, the Manicômio Judiciário, the Central Hospital and the Colonies of Juqueri. The Manicômio Judiciário, an autonomous department for the study and treatment of the criminally insane, established in 1933 and considered to be, in organization, one of the world's best, has done much in the development of forensic psychiatry in Brazil.

With these and other improvements, including psychiatric out-patient and mental hygiene clinics, a modern school for abnormal children, the adoption of all the new therapeutic techniques, the state of São Paulo disposes of an excellent psychiatric armamentarium. Further expansion is anticipated, with the creation of regional establishments so as to constitute a series of hospitals at the principal convergence centers of transportation and to eliminate the excessive centralization of patients that now obtains.

Dr. Pacheco e Silva relinquished his post as Director General of the state hospital system of São Paulo in 1937 to become Professor of Clinical Psychiatry at the University of São Paulo Faculty of Medicine and at the Paulist School of Medicine. The present Director General is Dr. Pedro Augusto da Silva, described by Dr. Pacheco e Silva as "one of the most brilliant figures in Paulist psychiatry of the new generation."

C. C. BURLINGAME, M. D.,
Institute of Living,
Hartford, Conn.

PATIENTS HAVE FAMILIES. By *Henry B. Richardson.* (New York: The Commonwealth Fund, 1945.)

This book was written by an internist in non-technical language for all who are interested in helping sick people to become well.

The text of 408 pages, containing glossary and general index, was the result of a study directed by Dr. Henry B. Richardson and financed by the Josiah Macy Jr. Foundation. The cooperation of the faculties of public health, medicine and psychiatry of Cornell University Medical School, the New York Hospital and its social service department, and the family service and department of educational nursing of the Community Service Society were necessary to carry out this project. Their goal was the better understanding of the family as a unit of medical care and the implications for treatment.

The breadth of cooperation needed for this study cannot be emphasized too strongly. It is the pattern of medicine for the future. This book shows clearly and with sustained interest how illness, when the time sequence is balanced against the total life picture of the patient, may take on an entirely different interpretation to the original impression gained by casual clinic contact. Treatment of the individual may be useless unless treatment is given to the family. To treat the family as a unit may need all the facilities of a highly organized community service, as shown by this study. To know the personality of the patient is not sufficient. It is essential to know the traits of all who comprise this unit.

This book shows with clarity, rarely exhibited, that apparent disease may be only malfunction of part of that person. Yet that person does not live to himself, but is part of a small constellation of people called the family. His personality affects and is affected by each and all of them, as the family unit is affected by what we commonly think of as environment in its wider sense.

Much is written about psychosomatic medicine—too little about social medicine. This text might be described as a combination of both. It should be prescribed reading for the medical student, nurse and social worker. One would like to see it in the hands of all who practice the art of medicine.

MARY V. JACKSON, M. D.,
University of Toronto.

THE SCIENTIFIC APPROACH TO CHRONIC ALCOHOLISM. (New York: The Research Council on Problems of Alcohol, 1946.)

It is estimated that 6 percent of the United States citizens who use alcoholic beverages become excessive drinkers, and that of these latter, 25 percent become chronic alcoholics; that is, there are some 750,000 chronic alcoholics in the United States. "There are more chronic alcoholics than active cases of tuberculosis. When this fact is considered, and when the almost total lack of hospital facilities is taken into account, it appears that alcoholism is near the top of the list of major public health problems."

The present brochure has been put out by the Research Council on Problems of Alcohol, the pioneer agency in this field. The magnitude of the problem is set forth in startling figures. For example, the cost of alcoholism to society in the year 1940 was estimated at $13,000,000 for mental hospital care, $25,000,000 for maintaining drunks in jails, $175,000,000 as the cost of crime associated with excessive drinking.

In dealing with this problem other countries, rather than the United States, have taken the lead. Sweden had before the war 10 state hospitals devoted exclusively to the treatment of alcoholism.

Switzerland had 20 dispensaries for out-patient service. Holland had a consultation bureau in each of its larger towns.

Beginnings have been made in certain states and New Hampshire, New Jersey, Connecticut and Alabama have established by legislative action special commissions to study alcoholism. Certain cities have also set up such committees or have established clinics for alcoholics, notably Boston, Buffalo, Charleston (West Virginia), Cleveland, Des Moines, New York, Pittsburgh, Rochester and Washington, D. C.

The Research Council on Problems of Alcohol is under the guidance of its President, Dr. A. J. Carlson, Professor Emeritus of Physiology, University of Chicago. The report sets forth remedial measures which must include (1) research; (2) increased hospital and other treatment services; (3) education; (4) industrial and legal controls. Mr. Howard Coonley, former President of the National Association of Manufacturers, states in a foreword "The medical and scientific approach to the problem of alcoholism should go far toward preventing another prohibition fiasco."

C. B. F.

SCIENTIFIC PROOF AND RELATIONS OF LAW AND MEDICINE. Master Index to the Symposium Series. Edited by *Hubert Winston Smith, LL.B., M.D.* (Urbana: Univ. of Illinois Press. 1946.)

This 26-page brochure indexes the papers in two symposia covering a great variety of topics having relations to both law and medicine. Each paper was published simultaneously in a leading law review and a prominent medical journal. The first symposium was published during 1943, the second in 1946. The purpose was to bring conspicuously to the attention of both doctors and lawyers important issues in which both professions are concerned.

In the first series four medical journals took part—AMERICAN JOURNAL OF PSYCHIATRY, *Annals of Internal Medicine, Annals of Surgery,* and *Clinics.* Eleven legal journals, representing all parts of the United States collaborated in this series. The second series was expanded somewhat and included six medical and seventeen law journals.

One hundred and ten contributions are listed in the master index. Many of them will be found of especial assistance to trial lawyers, expert witnesses and the courts in dealing with personal injury litigation, the problems of expert testimony and other medico-legal issues.

Dr. Smith, who is professor of legal medicine in the University of Illinois, has rendered distinguished service to the medical and legal professions in bringing to publication the mass of valuable reference material represented by this index.

C. B. F

IN MEMORIAM

JACOB S. KASANIN

1897–1946

Dr. Jacob S. Kasanin died of a cerebral hemorrhage on May 4, 1946. Although he had been ailing at times during recent years, he had been actively engaged in his psychiatric work and had planned to attend the 1946 meeting of The American Psychiatric Association, where he was scheduled to present a paper. His death came as a great shock to his many friends and his family. He is survived by his wife and three children.

He was born in Russia in 1897. During his childhood his family moved to Manchuria, and he came to this country in 1915. He obtained his B. S. degree in 1919 and his M. D. degree in 1921 from the University of Michigan. He received his basic psychiatric training at the Boston State Hospital and the Boston Psychopathic Hospital and his neurologic training at the Mount Sinai Hospital in New York. He obtained an M. S. degree in public health in 1926. He served as director of mental hygiene for the Jewish Charities of Boston from 1927 to 1928 and as senior research associate at the Boston Psychopathic Hospital from 1927 to 1931. Following this he became clinical director of the State Hospital for Mental Diseases at Howard, R. I. From 1936 to 1939 he was director of the psychiatric department of the Michael Reese Hospital in Chicago. In 1939 he went to San Francisco, where he organized and developed the psychiatric department of the Mount Zion Hospital. He was assistant clinical professor of psychiatry at the University of California Medical School.

Dr. Kasanin brought to psychiatry a keen and inquiring mind, enthusiasm and a constructive approach to psychiatric problems unburdened by dogmatic or hidebound thinking. He had an abundance of energy, which he used unsparingly in all his undertakings. His psychiatric interests were broad, and he made many important contributions to the literature, including two monographs in collaboration with others on "Conceptual Thinking in Schizophrenia" and "Language and Thought in Schizophrenia." He was active in teaching and in social aspects of psychiatry, doing pioneer work in mental hygiene in the San Francisco area. During the war years he also pioneered in providing out-patient facilities for veterans, and he was psychiatric consultant to the 9th Service Command.

His psychiatric attainments were widely recognized. He served as president of the American Orthopsychiatric Association in 1941-42.

Possessing an outgoing and colorful personality, Dr. Kasanin had a great capacity for making friends wherever he went and for keeping them. He was a stimulating and genial companion, whose zest was infectious and whose wit was always good natured. Though unconventional and often outspoken, he was essentially a tolerant and considerate person. He will be sadly missed, not only for his cheery presence but also for his solid contributions to American psychiatry.

DAVID ROTHSCHILD, M. D.,
Worcester State Hospital.